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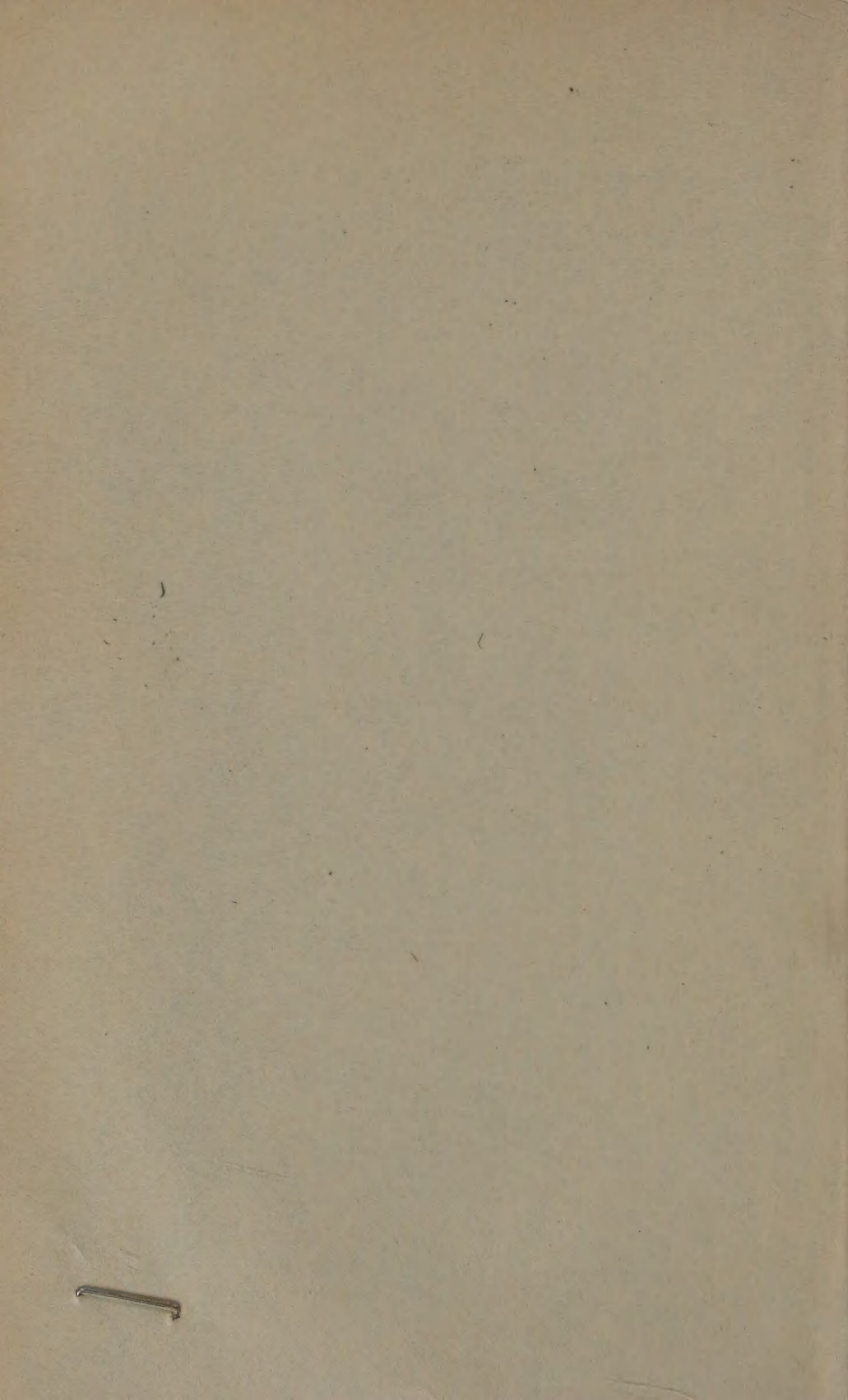




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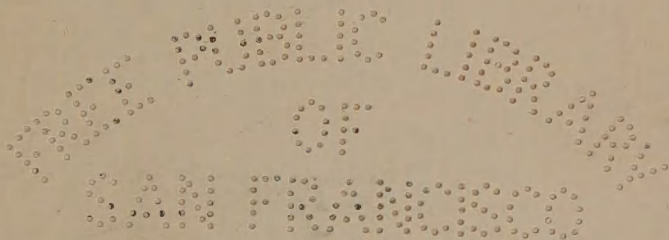


# AMERICAN INDUSTRIAL PROBLEMS

BY

W. R. LAWSON

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# AMERICAN INDUSTRIAL PROBLEMS.

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## INTRODUCTION.

AT the opening of the twentieth century the British nation was haunted by two nightmares—the war in South Africa and the American bogey. The first is fortunately over and done with, but the second is still with us. Though the American bogey has passed out of the hysterical stage and can now be regarded with comparative calmness, it is far from being disposed of. Europe is growing accustomed to the formidable competitor who has sprung so suddenly into the centre of the industrial arena. She is recovering from her first fright at the transatlantic invasion of her markets. She finds that the invaders are not quite so formidable as they threatened to be, and that there is still some hope for at least a few of her staple industries. The bogey is no longer so alarming as it was. Though it is still regarded with inter-

est, the interest is of a more intelligent and less hysterical sort. Foolish panic has changed to rational curiosity as to the true significance of a strange phenomenon.

We have now a problem before us with many ramifications—the most complex and many-sided problem in the economic world at this moment. Some may prefer to regard it as a group of problems, and by treating it as such greater freedom of action may be gained. The reading tastes of the day do not incline toward severely scientific order. They care less for logical method and sequence than for salient features. We shall endeavour, therefore, to emphasise the salient features of each part of the inquiry without losing sight of their bearings on each other. Vast as the range of American industry may appear to be, and widely diverse as are its many developments, there is more method and system in it than in the industry of smaller countries. There is more than the average degree of common interest among Americans. They are more given to co-operation than other people. They pay greater attention to each other's affairs, and are less secretive about their own.

A natural effect of this habit is that they are able to take wider and more general views of the national industry as a whole. Every trade has its special organisation, and its interests are closely studied from the collective as well as from the individual standpoint. Rising a step



higher than class interests, there is a strongly developed national interest in trade and commerce. With not a few Americans national industry is both politics and religion. They are as proud of a compatriot who "beats the record" in business as if they had done it themselves. The workman takes pride in the superiority of his tools; the manufacturer in the size and equipment of his factory; the trader in the number of bales and barrels he can ship daily. Not only so, but all his neighbours rejoice with him when he is doing well. The local banker aids and encourages him, the local editor "writes him up," the local Board of Trade records his progress in its annual reports.

There is a freemasonry in American business peculiar to the country. It draws all the different branches of trade together, and renders them helpful to each other. Everything, even the churches, is conducted on business lines. There is no institution, local or national, which is not imbued with a commercial spirit. The whole Republic, from the White House downward, lives in a commercial atmosphere. All its parts move together with a kindred impulse. Hence the rapidity of its movements. In a few months it shoots up from a slough of despond into blazing prosperity. Sometimes it falls back just as quickly, but even then there is comfort and consolation for the Americans in the fact that they have all fallen together.

Side by side with this strong community of feeling we find in American industry an unparalleled degree of concentration, both of skill and capital. Hardly a single industry is free and open to the man of moderate means. All are dominated more or less by the millionaire and his associates. Whether these be half-a-dozen or half a hundred, they are equally omnipotent. Every American up-to-date industry is ruled by a few mammoth establishments, which lord it over competitors and customers alike. These mammoth establishments are not only the most distinctive feature of the industrial system which has produced them ; not only do they strike its keynote and impress on it its special character, but they are extending their influence over the whole Republic, into political and social life as well as into every branch of business. Everything is being moulded on them, and it is becoming the universal ambition of Americans to live up to them. The millionaire spirit is insinuating itself into banks, railroads, shipping companies, ironworks, and even into retail stores. The very farmers have caught it, and are now projecting fifty-million-dollar syndicates to finance their crops.

The mammoth trader, call him by whatever name you please,—trust, syndicate, combine, or controlling company,—is the head and front of American industry. He claims also to be its backbone, but further experience is needed to prove what sort of a backbone he really is. Anyhow, he is the

central fact in our present inquiry. All the industrial problems now agitating the United States revolve round him. If we could solve him, the subsidiary problems would be easy. A clear understanding of him would give us a cue to nearly all the rest.

The main problem may be approached from another point of view, and treated as a national rather than a class or an individual question. It may be asked, What has made the American people—including the millionaires and the monopolists—what they are to-day? What has given them their acknowledged superiority in industrial activity, enterprise, and achievement? Comparisons may be odious, and the Americans in the first flush of their international victories may have assumed foolish airs of "U.S. first and the rest nowhere," but in frankly conceding to them the above qualities we give them no more than is their due. It becomes of vital interest to us, as their chief rivals in international trade, to find out how they acquired them.

The first answer that suggests itself is, that the Americans, like the British, are a composite race. They have absorbed the distinctive qualities, good and bad, of all the most active races now in existence. Such a blend of nationalities as they represent is without precedent, and in fact it could never have occurred before. Then the huge country they occupy has had an inevitable influence on them. It has accustomed them to large distances, large

ideas, and large undertakings. They could not, if they would, have paddled and potted about as we do in our small island. Consider next the bracing effect on them of their history—full of adventure and lacking neither crises nor national perils to strengthen their nerves. The special demands of a rough life on their skill and courage have made them resourceful, self-reliant, and self-adapting. Their natural genius for mechanics and the value to them of labour-saving tools have made them inventive in a small way. They can hardly claim for themselves any of the great inventions of the day. Such of these as they possess they owe to imported inventors. A very large proportion of their best mechanics have also been imported. But the multi-millionaire and the monopolist are, as a rule, native products. They are the unique and peculiar contribution of the United States to modern industry.

A studious endeavour will be made here to give full credit to the Americans for every good quality of their industrial system. Their workmen, their managers, their organisers, their financiers, their banks, their railroads, their tariff-makers, and their speculators will be all treated sympathetically. Whatever may be thought of their methods, nothing but praise can be given to their thoroughness, keenness, and persistence. They are perhaps the only people in the world who really enjoy a busy bustling life. Work for its own sake they do not profess to love, but they like to be in the thick



of it, doing things and getting things done for them. They have the finest appreciation of the results of work. They know when they are getting value for their money, and this is perhaps the strongest pull they have on their European competitors, particularly on ourselves. No nation in the world thinks less about getting value for money than the English, and none thinks more about it than the Americans. They have had such a large and varied experience of all kinds of labour that it has made them experts in the art of getting a fair day's work for a fair day's pay.

On the other hand, the Americans have the faults of their virtues. Their energy and enterprise carried to excess may become a danger to themselves and others—a danger even to the Republic. To be always trying to “lick creation” may be a risky game, especially when played so largely as it is at present with borrowed money. “U.S. first and the rest nowhere” may prove a foolish as well as a vainglorious motto. It has already produced some very questionable developments in American social and industrial life. The multi-millionaires are its appropriate fruit, and whether they are a blessing or a curse to the Republic has yet to be seen. It must be hard for Americans to decide whether to wish them success or otherwise. If the multi-millionaires were to have all the success they would like, the United States might become uninhabitable for everybody but themselves. But if they should prove to be only a passing fashion—

financial freaks, so to speak—they may leave behind them such a chaos that a new industrial system will have to be built on the ruins of their campanile. Brilliant as the American outlook appears, it is not entirely cloudless.

## CHAPTER I.

### A PRELIMINARY SURVEY.

#### I. AMERICAN RESOURCES.

To state adequately the industrial problem in the United States would require a detailed account of the American people and their physical and economic conditions. It would involve a full appreciation of their peculiar gifts and qualities; their energy, industry, inventiveness, and, above all, their universal spirit of rivalry. As a pendant to that we should have to describe their wonderfully rich and varied territory, with its many soils and climates and natural products. All of which, again, would be a mere introduction to the vast network of trades, manufactures, and wealth-creating industries of every kind with which the Union is covered. These are the elements of the problem we have to deal with, and the reader will already have perceived how impossible it is to analyse them completely. The most that can be done here is to indicate the more important of them.

The United States of to-day is the youngest of the Great Powers. It is pre-eminently a creation

of the nineteenth century,—its most distinctive as well as its greatest product. No other country did more for the nineteenth century or left a deeper mark on it. *Per contra*, no other country gained more from the nineteenth century either in material or intellectual benefits. When it opened, the Declaration of Independence was a matter of yesterday, and Washington's first election as President was only eleven years old. The century began with a population of five and a quarter millions scattered over an area of 827,000 square miles—less than six and a half to the square mile. At the end of the nineteenth century the five and a quarter million souls had increased to over seventy-six millions, and the 827,000 square miles had expanded to over three million square miles. In order to assist the European mind to realise the meaning of three million square miles an American writer asks us "what we should say of a Republic of eighteen states, each as large as Spain; or one of thirty states, each as large as Italy; or one of sixty states, each as large as England and Wales?"

But the area of the American Union is not its proudest boast. There are larger territories under one crown, but none with so much productive power. From the three million square miles of American soil there were raised at the end of the nineteenth century gold valued at 80 million dollars a-year and silver at 75 million dollars. American mines produced 241 million tons of



coal per annum ;  $13\frac{3}{4}$  million tons of pig-iron, and 270,000 tons of copper. From the pig-iron over 10 million tons of steel was manufactured, and all used within the year, with a considerable quantity of imported steel in addition. The oil-wells in operation yielded 2660 million gallons of crude petroleum annually, besides an unmeasurable supply of natural gas. The harvest of seven million farms comprised from 500 to 670 million bushels of wheat a-year ; from 1500 to 2300 million bushels of Indian corn ; 10 to  $11\frac{1}{4}$  million bales of cotton ; 300 million pounds of wool ; and in a good year over 300,000 tons of sugar.

The Americans, with their admirable turn for commercial statistics, have figured out the money value of all these huge crops, and can tell us almost to a dollar their value year by year. The 241 million tons of coal are entered in the national income account at \$322,432,000 ; the  $13\frac{3}{4}$  million tons of pig-iron at \$250,185,000 ; and the 270,000 tons of copper at \$97,755,000.

Three staple products—coal, iron, and copper—thus aggregated over 670 million dollars a-year. When worked up into iron, steel, and copper manufactures their value would be tripled or quadrupled. The 2660 million gallons of petroleum was appraised in its crude state at \$74,246,000. Fireclays, though little heard of, produced \$78,704,000, and the output of ordinary building stone was worth \$41,400,000 a-year.

The entire mineral production of 1900 was

valued at \$672,099,000, and the metals came to nearly as much more, including of course gold and silver. Their aggregate valuation in 1900 was \$597,152,000. The annual revenue of the country from mines and quarries would thus be close on 1260 million dollars. But large as it may seem, that is quite a subordinate matter beside the agricultural income, which runs up to nearly four thousand million dollars, or, including lumber, to nearly five thousand millions. Cereals alone, or, as the Americans call them, "bread-stuffs," bring in 1390 million dollars in an average year. This is supplemented by dairy produce to the estimated value of 450 million dollars. The hay crop is generally good for 450 million dollars, potatoes for 90 millions, and other root crops for 50 millions more.

While cereals are characteristic of the North, the South has its own special staples, also quite American in their magnitude. A normal cotton crop should realise 420 million dollars, and it is a poor tobacco crop that does not yield over 70 millions. The south-west, again, makes a speciality of wool, which realised in 1900 nearly 76 million dollars. Then we have 1038 million dollars credited to lumber, of which the South claims a rapidly increasing share.

Finally, there is the great live-stock industry, to which we owe the Chicago stockyards, the Beef Barons, and the scientifically slaughtered hog. It is the largest and most varied contributor

to the meat supply of the world. In the year 1900 it furnished to the five principal "packing centres"—Chicago, St Louis, Kansas City, St Joseph, and Omaha—the materials for a Gargantuan feast of 6,615,726 cattle, 6,492,563 sheep, and 16,872,640 hogs. Elsewhere in the states there may have been 50 per cent more of each class marketed, which would raise the totals in round numbers to 10 million cattle,  $9\frac{3}{4}$  million sheep, and  $25\frac{1}{2}$  million hogs. At farm prices, say 25 dollars per head for cattle and 10 dollars per head for sheep and hogs, their aggregate return to the breeders would be over 600 million dollars. The prices named are on the normal level of 1900, and not on the famine basis which the Beef Barons have been enjoying during the past season.

The "animal industry," as the Americans term it, should have produced in 1900 fully 600 million dollars in raw materials alone. When converted into canned beef, bacon, lard, &c., it would no doubt attain a considerably larger figure. As it is, we have already reached a total of over 4600 million dollars for an average year's income from farm crops, lumber, and live stock. Combining with these 4600 million dollars the 1260 millions derived from minerals and metals, we have a grand total of 5860 million dollars as the annual value of the food and raw materials raised in the United States. What becomes of it all? Four-fifths of it—not of each separate commodity but of the gross value—passes into

domestic consumption. The other fifth is exported—a comparatively small surplus out of such an enormous production. The home consumption is of purely domestic interest, but the exported surplus acquires an international importance. It is the basis of the industrial problem we are now investigating.

With  $76\frac{1}{2}$  millions of people on one side and 5860 million dollars' worth of annual production on the other, we have before us a very impressive economic problem. It revives on an immensely enlarged scale the Malthusian question of our own early economists. Whether in time to come the teeming millions of workers are to outrun their raw material, or their apparently boundless powers of production are to outrun all available markets, may be an interesting speculation of the Malthusian sort. We do not venture, however, to project ourselves so far into the future. Questions of to-day and to-morrow are just now sufficiently difficult for the practical economist. Our attention has to be concentrated on the remarkable and unprecedented phenomenon presented by a community of  $76\frac{1}{2}$  millions of people producing annually 5860 million dollars' worth of food and raw materials, to say nothing of the manufactures into which these raw materials may be subsequently worked up.

Impressive as this huge combination of material wealth and personal energy already is, we are told that it is only in its infancy. If its present rate of growth continues it may, according to its

American panegyrists, double itself every twenty years. Imagine, then, the United States of 1920 with 153 millions of people and an annual output of food and manufacturing materials equal to 11,720 million dollars or 2348 millions sterling. Would it be possible to maintain a stable economic balance between two such gigantic forces? Could a community so rich and powerful be permanently held in hand by any single Government? Could classes so widely different, and in many respects antagonistic, as such wealth might develop, live and work harmoniously together? Could any country, however large, continue long to produce at such a rate without risk of exhaustion? Could such a volume of production be long maintained without swamping every market in the world?

These are a few of the questions which the new American Malthus will by-and-by have to face. Whether are the producers to give out first, or the means of production or the capacity of future consumers? They cannot all go ahead indefinitely at high pressure. In order to make room for them there must either be a vast expansion of the existing industrial *régime*, or a new *régime* specially created for them. And if the latter, what form is it to take—capitalist, socialist, communist, or some American blend of all three? In less than two decades these questions, which seem so fanciful to-day, may have become practical and even urgent. Events are fast leading toward them,



and already the surplus production of the United States is a bogey to all international markets. The fear of being made a dumping-ground for exports which the United States has to get rid of is strong, not in Germany alone, but in many other countries.

But this dreaded surplus is itself a puzzle and an anomaly. It does not act as it might have been expected to do, steadily and with ever-increasing pressure. It is very intermittent, not to say erratic, and sometimes it doubles back on itself. What, for instance, could be more paradoxical than the action of the United States metal trades in the past few years? First they flooded Europe with American iron and steel; then they wheeled round and bought at higher prices all the iron and steel that Europe could spare to them. It seems incredible that in a country producing minerals to the value of 672 million dollars a-year, and metals to the value of 524 million dollars a-year, there should be a coal and iron famine, but so, in fact, there is. It had begun long before the strike of the anthracite miners, and apparently will last long after that is settled. The United States is to-day the largest producer of iron and steel on record, and yet it has not enough to satisfy its home requirements. What it can be doing with the millions of tons it puts away every month no one can satisfactorily explain.

Two years ago the Americans were going to produce iron and steel for the world at large.

Now they are taking fright themselves at their enormous consumption of both metals, which not only leaves them little to export, but obliges them to draw on Europe for more. This is the most remarkable phenomenon in the industrial history of our time. It gives us an idea of the strange and unexpected wonders the future may have in store for the industrial world. Evidently it is useless to reason from existing data as to the iron and steel industries of even a few years hence. They may still be in a state of famine, or they may have rushed to the opposite extreme. So with any other of the great staple industries of the United States. Its movements from year to year will be impossible to forecast. When it is expected to flood Europe with its surplus output it may become a buyer, and when it looks as if it were to be a buyer it may let loose enormous exports. On the one hand the quantities of raw material it has to handle are so enormous, and on the other the manufacturing plant which it has to keep employed is so gigantic, that violent fluctuations of supply and demand will be inevitable. Both domestic and foreign trade will be liable to frequent disorganisation in consequence. United States exports are thus likely to become more and more erratic.

## CHAPTER II.

A PRELIMINARY SURVEY (*continued*).

## II. AMERICAN ENERGIES.

THE physical capabilities of the United States, as measured by its annual output of industrial materials, we have found to be almost fabulous. They have the further advantage of unrivalled means of transportation both by land and water, which distributes them all over the country at a minimum cost. Nearly everything required for local industry is laid down on the spot at cheaper rates than are enjoyed by any other industrial community. The American manufacturer thus starts with a rare advantage, which at every turn he increases by equally exceptional energy. He takes a patriotic as well as a personal pride in his business, and brings to it a verve and keenness peculiarly American. He sees everything around him on a grand scale, and he tries to live up to his surroundings. The special qualities of American industry—its spirit, its methods, and its organisation—are doubtless derived to some extent from the immensity and variety of its materials. The

magnitude of the work elevates and enlarges the worker. Therefore we may expect to find in the *personnel* of American industry both the merits and defects of the grandiose.

It is hardly to be wondered at if the producers of nearly six thousand million dollars' worth of food and manufacturing materials annually should worship mere bulk. Quantity before quality is a natural motto with them. Individuals, firms, corporations, and states, right up to Congress itself, are all bent on breaking records. It is the keynote of their lives, and largely determines the character of their activity. It produces workmen, employers, organisers, supervisors, capitalists, financiers, traders, and speculators of exceptional ability and enterprise. It has also endowed them with exceptional gifts of combination. The *personnel* of American industry corresponds with its raw materials in fulness and versatility. The United States, though the youngest of industrial nations, has the greatest variety of trades and manufactures. To those it borrowed from the old world it has added many specialties of its own. Whatever it borrowed it has changed and adapted to new circumstances. Europe, on the other hand, has been much slower to copy American novelties. Its labour, its trades and manufactures, its banks, railroads, and stock exchanges are all much less plastic than those of the New World. The chief fault of the latter is that they are too plastic—too continually in a state of flux.

The personal energies at the service of American industry are not only great in themselves but they have the support of innumerable auxiliaries of various kinds. Politics, science, society, and even religion, are willing handmaids of American trade. In other countries they would either hold aloof or dissipate their energies uselessly. In the United States all social forces are businesslike, and understand the wisdom of keeping on good terms with business men. To take only one example—what Congress has done for tariff-mongers, from the Steel Trust and the Standard Oil Company downward, would stagger Old World politicians. The whole governing body, in fact, from the youngest customs officer to the President, is devoted to national industry. How strong and persistent this influence is, and how much it has done for American trade all over the world, it will, we fear, be almost impossible to impress adequately on the minds of our parliamentarians. They would require to spend a year or two at Washington and see it at work in order to realise the difference between American fervour and the lukewarm politeness of Whitehall. Even our Cabinet Ministers, with one conspicuous exception, treat the industrial question with mere condescending affability, which bears no comparison with the enthusiasm it evokes at the White House, in Congress, and in every State Legislature.

Among the personal factors in the American problem a high place must be given to the creators



and managers of the transportation service, which is one of America's proudest boasts. It embraces not only two hundred thousand miles of railway, but a network of magnificent waterways, and ample choice of ports and harbours equal to the latest requirements of ocean trade. In this connection the burning question of shipping combines may claim attention. Its ultimate solution depends even more on harbours than on ships. Big steamers are not all that will be needed to fight Mr Pierpont Morgan's Atlantic Trust. Big wharves and deep-water approaches to them may be found equally indispensable. Up-to-date equipment of wharves for the rapid transfer of freight from ship to store and *vice versa* is becoming another great factor in shipping competition. So is the close working of rail and water carriage. The railway waggon and the ship have to be brought as near together as possible. Slow and expensive street cartage has as far as possible to be eliminated. Through-rating must be developed until goods can be sent on a single bill of lading from any port of the world to any other port.

We are as yet far from this ideal of international transportation, but the Americans are making rapid progress toward it. They are much nearer it than any other nation, and this is a phase of their industrial development specially deserving of foreign study. Versatile as the American is, he is not a universal genius. He has his limitations as well as his strong points. On the whole, we find

him at his best in the transportation department. He has made it peculiarly his own. Here his most notable successes have been achieved. If he has not been fortunate in his financing of railways, he has been brilliant in his management of them. He hopes soon to shine equally in shipping.

But the sphere in which the Americans are most ambitious to shine—namely, finance—is the one in which they have achieved the least solid success. We say this in face of the many brilliant reorganisations, refundings, mergers, and conversions they have lately carried through. It has yet to be seen whether these are mere fireworks or substantial finance. The earlier reorganisations have produced wonderful results for the time being: whether they are to be permanent or not is another question. The later schemes have nothing in common with the earlier ones except their parentage. They are as wild and flamboyant as the former were over-cautious. The reorganisers of 1895-96 have since rushed from extreme prudence to extreme prodigality. They are pessimists and inflationists as may suit the occasion. Fixed financial standards they apparently have none, and whether they be levying assessments or letting loose floods of new stock, they have no moderation. Everything is done with American magnificence, and magnificent finance is seldom sound finance.

The American heel of Achilles is in Wall Street. It will be found in the banks which dry-nurse

Wall Street plungers. Currency, banking, and finance have always been the stumbling-blocks of American industry. Again and again they have brought it to utter grief. If the Americans had natural aptitude for finance they would have given themselves long ago a sound currency and banking system. They have failed to do this, partly because they have never made a serious effort, and partly because sound currency and banking are alien to their speculative habits. Wherever banks are properly appreciated they are fitted for their special work, and for that alone. But in Wall Street they have to serve other offices than their own. They are often created to serve the interests and convenience of the ruling speculators of the day. When properly fitted for their work they should be left alone to perform it, but that does not suit Wall Street either. Its banks are continually being manipulated and experimented with. It would be difficult to say whether in the past few years the banks or the railroads have suffered most from gratuitous scheming in Wall Street—all for some object other than the public interest.

In the United States there are about ten times as many bankers as in the United Kingdom. Man for man, they are equally capable, and have quite as strong a sense of responsibility. In some respects they are better trained, and have greater calls on their personal judgment. But the active, alert American does not make so good a banker as

the more stolid Englishman. He treats banking as an ordinary business, which it is not. In order to ensure safety it has to be conducted with much greater caution than an ordinary business; it has to provide a broader margin against risks; it has to subject itself to fixed rules which an American banker would call wooden. But the practical effect of the wooden rules and unwritten traditions by which English bankers voluntarily bind themselves is that their work is well if rather monotonously done, and that serious trouble is rare among them.

American bankers have never learned caution as it is understood in England. In their early days they were so free and easy that the Legislature had to apply to them restraints which they would not practise of their own accord. Procrustean rules were imposed on them from outside, such as the law requiring them to hold cash reserves equal to not less than one-fourth of their deposits. Because they cannot be trusted to keep out of danger by themselves they are watched, inspected, and regulated by the State. But the State can only protect them and their customers from certain kinds of risks. It leaves many others open to them, and in excited times like the present they rush into these with their eyes shut. Without the active help and co-operation of the banks, Wall Street could not on a recent occasion have painted the sky red with fantastic prices. That was bad enough banking, and worse followed when the

inevitable collapse occurred, and the banks had very little money to lend even at 20 or 30 per cent.

United States banking is resourceful only in the wrong sense, not in devising safeguards for itself, but in getting itself cornered and having to call on the Government for heroic measures of relief. Strange to say, the rank and file of ordinary traders are more conservative than their bankers. While in England the banker is supposed to hold the trader in check, in the United States the trader has to keep a sharp eye on the banker. In England commercial paper has to be more closely scanned than any other kind of banking security, but in the United States it is the safest and most substantial. An unusually large proportion of the retail trade is done for cash. The retailer is consequently able to meet his engagements to the wholesaler with comparative regularity and punctuality. In trade reports a very familiar expression is always occurring, "collections good" or "collections fair," meaning that accounts are being successfully collected. The wholesaler in his turn meets his engagements punctually. Often he has sufficient capital in his business to finance it without any outside help. Instead of requiring a banker to assist him, he is frequently a banker as well as a merchant.

In comparison with the enormous volume of business carried on in the States, the percentage of failures is remarkably small. It is years since a



crisis was heard of in any of the staple trades—dry goods, hardware, &c. Recently, when\*Wall Street was having a dear money spasm of unusual severity, peace reigned in the wholesale districts of New York. Commercial paper continued to be discounted at 5 and 6 per cent, when Wall Street gamblers were paying 25 and 30 per cent on the best collateral they could offer. The American trader, unlike the American banker, is resourceful in the right way. He works on safe principles and prudent methods. Even when he is handling borrowed capital he is careful of it. His great gift of “making things pay” enables him to borrow freely and to earn large profits for himself as well as good interest for the lender. The faculty of utilising another man’s capital better than he can utilise it for himself is the secret of the successful trader, and it is highly developed in the States—far more so than in Europe. Capital there flows more liberally into commercial channels than it does in older countries. The American trader is, in short, an energy of the right kind, his zeal being tempered with shrewdness.

The manufacturer, the trader, the politician, the banker, and the financier are very live factors in American industry. They are one and all persons of resource, and their active brains are as fertile as the soil which furnishes them with their raw materials. Outside of them a variety of other contributories to the wealth of the country may be distinguished. The educators of the people

are indirect wealth-producers in so far as they give a practical money-making turn to their instruction. Formerly this was rather an occasion for sneering at American education, but it is now better understood. In an industrial age the best education is the one that best fits us for practical duty. In this respect American schools of all grades, and especially the technical schools, are rendering valuable service to the community. Were we asked wherein the Americans appear to be furthest ahead of their European competitors, we could unhesitatingly answer, in technical education. It is not merely that American technical schools are better in themselves, more liberally endowed, better equipped, and more productive of technical skill, but that they keep in closer touch with the industries for which they serve as nurseries. Most of them are associated with local industries, and many are directly connected with mills, factories, or mines into which the students pass as soon as they are qualified. In English schools of the same class comparatively few students qualify for actual work, and they may not be able to find work when they qualify. It is all a happy-go-lucky business which may end anyhow or nohow.

The Americans never waste money in giving a man education which he is not to use; nor do they let him waste his education after they have given it him. The dabbler and the amateur, who fill the highways and byeways of English cities, have no

place in Pittsburg or Chicago. Men there learn things not in order to talk or write about them, but to do them. And as soon as one has learned an art or a handicraft employers are always ready to give him a chance to practise it. He does not find all the desirable places in workshops filled with relatives of directors and head officials. He is not asked for a three-hundred-guinea premium in exchange for the privilege of loafing around and learning whatever he may happen to pick up either of good or evil. He will not see responsible positions occupied by ornamental figureheads or responsible work intrusted to glib talkers. Scamping is not allowed in the United States, even in the highest circles. The president of a company has to be at his post late and early the same as an office boy. All work hard and willingly, because everybody from the top of the ladder to the bottom is doing the same.

The personal factor in American industry is strong all round. Intellectually the people are as full of resource as the country is physically. A strenuous life and boundless scope for energy and ambition have made them so. But they are entering on new conditions, less strenuous and more luxurious, which may change their character. The American of the next generation may be, in fact is almost certain to be, very different from the American of to-day. Already signs of relaxation are apparent in the upper ranks of society which, if unchecked, cannot fail to extend downward.

## CHAPTER III.

### PRELIMINARY SURVEY (*continued*).

#### III. LIMITATIONS.

OUR preliminary survey has brought before us a very noteworthy industrial situation; one of vital interest not only to the Americans themselves, but to all other industrial nations likely to come into competition with them. It marks a development quite out of the ordinary course of human progress, and the special character of which has only just begun to be realised. This development as it proceeds will probably become still more unique, and may have further surprises in store for the Old World. What course it may take is for the most part matter of conjecture. Its past history is too short to furnish reliable precedents, and its peculiarities are as yet in too crude and controversial a stage to be judged with any approach to scientific confidence. Very probably the more extravagant of the contradictory views expressed on both sides will be falsified by events: many of them have, in fact, been already exploded. The exuberant optimism of the Americans on the one

hand, and the doleful pessimism of our British Jeremiahs on the other, have been equally overdone. The new industrial system hailing from the West, whatever its future triumphs may be, is at least not going to have a walk-over. In the field of international industry there are no final victories or absolute defeats. The whirligig of time brings its revenges to all who have patience to wait for them and courage to seize them when they come round.

But the American position, strong as it is, has drawbacks and limitations. It presents the most complex study in the whole range of industrial science. If we could accurately measure its energies and its limitations we might have the key to the industrial development of the world. This much is already clear, that the present generation, and possibly two or three succeeding generations, will have to advance on American lines. The world's industry has received from the West an impetus and a direction which it may not be able to shake off for years to come. Hence the evident importance of acquiring a true and just conception of the new forces that are coming into operation, as well as of the improved methods of applying them.

No people gifted as the Americans are with natural resources and industrial skill could be long restrained within their own borders. In course of time they are bound to produce more commodities than they can consume. A surplus

has to be sent abroad, and year by year it increases. This was an inevitable incident in American development which should have caused no surprise. Neither perhaps would it have done so but for one or two dramatic situations which arose in connection with it. Toward the end of the nineteenth century the Americans underwent a sudden change from extreme depression to what they themselves call "blazing prosperity." They had a long run of unprecedented luck, which they thought was never to end. The letting loose among them of an unexpected flood of wealth quickened all their energies and set every wheel in their industrial organisation spinning wildly. They mined and farmed and manufactured at such a furious rate that they thought they were going to fill the world with their surplus wares. But they had underrated their own powers of consumption, and soon they discovered that their home markets could absorb a great deal more than they had reckoned on.

Meanwhile the demand for American goods in Europe, which had been exceptionally stimulated by various causes, began to return to its normal level. Since the banner export year 1901 the tide has turned, and now every succeeding month shows a less favourable balance of trade. This may be only a temporary check, but it may also indicate one of nature's limits. It warns us to be cautious in forming an estimate of the probable future of the United States in relation



to international markets—the arena in which American industry has ultimately to find its level. Their domestic prosperity or otherwise concerns only the Americans themselves, but their international prosperity or otherwise concerns all nations. That they are henceforth to be a dominant factor in international trade, and probably in many other international questions as well, may be at once conceded. But what their share of such trade is to be, at whose expense it is to be acquired, and what effect it is to have on the industrial situation generally,—these are all, as it were, unfledged questions yet. The experience of the past three or four eventful years may throw some light on them, but it is not sufficient for ■ definite judgment.

The close of the nineteenth century showed the productive power of the United States at its best, and also the exporting power. It likewise exhibited a peculiar relation between the two, and excited certain fears regarding them which have for the present been falsified though they may easily recur. We have learned from the experience of these recent years some useful lessons: among others, that American industry proceeds by violent spurts upward and downward; that its exportable surplus, large as it seems, is in reality small compared with its total production; that American exports are liable to sudden and abnormal increases, which, however, may not last long; that large increases in exports are soon followed by a

boom in domestic trade which reduces the exportable surplus to its former level. Prosperity has thus two remarkable effects in the United States. At first it gives a great stimulus to foreign trade, which after a time extends to the home trade. The latter then overshadows the former, for, as American manufacturers frankly admit, more money can always be made at home than abroad. It is only at certain periods—generally in the early stages of a rally from severe depression—that American exports become really formidable. When home markets are buoyant the foreigner cannot compete with them.

From an international point of view these exports differ widely in competitive power. Breadstuffs, for instance, have a very different effect on international markets to that of manufactured exports, or even of manufacturing materials. They can never be over-abundant for long at a time, and their temporary over-supply never causes industrial trouble, but rather the reverse. No possible danger to European industry can ever be caused by the 249 million dollars' worth of cereals, the 9½ million dollars of dairy produce, the 120 million dollars of hog products, and the 119½ million dollars of live and dead meat with which it is annually supplied by the United States. And apparently the United States can well spare them, for they amount to less than 500 million dollars out of the 2361 million dollars' worth produced. Of its cereal

and meat crops it consumes  $78\frac{1}{2}$  per cent at home and sells  $21\frac{1}{2}$  per cent abroad. In addition it contributes to international markets  $6\frac{1}{2}$  million dollars' worth of hay, potatoes, &c., and about 3 million dollars of sugar and molasses, but these are mere fractions of its total production—namely, 584 million dollars for hay, potatoes, &c., and 37 million dollars for sugar and molasses. Its tobacco crop, valued at 72 million dollars a-year, it shares pretty equally with other nations, its exports for the year under review having been entered at 32 million dollars.

The home-grown food-supply of the United States, including tobacco, amounted in 1900 to about 3055 million dollars, of which 540 million dollars was exported, leaving 2515 million dollars for home consumption. That would give 33 dollars per head for the then population of 76 millions. In any estimate of the future development of this branch of American industry—much the largest and most important branch, it will be observed—it is the 76 millions of home consumers that will have to be first considered. They far outnumber the foreign buyers of American food-supplies, and in money value their consumption is as nearly four to one. They also increase more rapidly than the foreign buyers, and unless the food production of the United States should grow much faster than the population—of which there is no immediate prospect—the percentage of it consumed at home will every year be larger.

Home consumption will become relatively more and more predominant until the food exports sink into comparative insignificance. In course of time they may cease to be a ruling factor in the American industrial problem. They may even now be eliminated without danger to the final issue, and with them will go more than half of the 5860 million dollars a-year representing primary production in the United States.

Our reasoning as to the relative importance of the food-stuffs consumed at home and abroad proceeds on the assumption that both markets are equally free. This, however, is not the actual case, and it may become less so in future. International markets are subject to fiscal obstacles and restrictions from which domestic markets are exempt. If these obstacles were to be increased as against American food-stuffs in Europe,—if, for example, stiff import duties were to be imposed in the United Kingdom similar to those on the Continent,—their effect on the American growers might be serious. The returns realised on the food-stuffs exported might be reduced by the amount of the duties, and the injury might not end there. The export prices as they fell might drag down domestic prices with them, and there would be a loss not alone on the 540 million dollars' worth exported, but on the whole 3055 million dollars' worth produced. In our own case, if, as is probable, the new colonial policy should result in a substantial increase in our food-supplies

from our own colonies, a preferential duty against foreign food-stuffs would hit the Americans harder than any one else. It might lower proportionately the return for American food-stuffs in the United Kingdom, which in turn might lower corresponding markets all round in the United States.

Outside of food-stuffs the United States has three or four valuable groups of exports which may be distinguished as industrial materials. The bulk of its cotton it ships to Europe in the raw state. Of the 419 million dollars' worth grown in 1900 fully three-fourths went abroad. On the other hand, a very small percentage of its wool clip leaves the country—\$1,568,000 out of a total of \$75,625,000. The United States is an importer rather than an exporter of wool. Even in lumber it has a trifling foreign business compared with the immense quantity produced. In 1900 the total cut of lumber was valued at 1038½ million dollars, but only 52½ million dollars' worth was exported, the other nineteen-twentieths having been used up at home.

If, as regards agricultural produce, possible limits can be foreseen to American competition, it is otherwise with minerals and metals. Their future both in the old world and the new is among the darkest of industrial problems. It is in these industries that the Americans have made the most startling progress and exhibit the greatest possibilities of future growth. Their output of minerals alone was valued in 1900 at 672 million dollars,

and their metal production at 524 millions. Of the latter about a third was exported, but of the former only a seventh. They predict both for their output of raw material and their manufacturing capacity a practically boundless expansion. One of the arguments which the promoters of the United States Steel Trust conjured with most assiduously was the immense extent of their ore reserves on Lake Superior and elsewhere. But even the Mesaba and the Vermillion ironfields have conceivable limits.

For success in the international war of industry the first requisite will be abundant supplies of raw materials, and the second highly efficient *personnel*. The Americans claim pre-eminence in both these respects, and their future will depend on how far they can justify these claims. Not one or other of them singly can decide the issue, but their combination. Other countries might conceivably rival the United States as producers of raw materials, but might lack the power to work them up as the Americans do. Others, again, might have the industrial skill without the raw materials. A successful competitor of the Americans will require both.

But if ample supplies of raw material and a highly efficient *personnel* be more than half the industrial battle, this is absolutely true only when the industrial combatants are allowed to fight it out by themselves. When politics come into play natural conditions may be upset and sometimes reversed. In international trade politics may be-



come the dominant factor. The Americans, of all nations, have the least cause to complain of this, since the policy of mixing up politics and business is peculiarly their own. So far they have profited most by it, but now they may be about to have their favourite weapons turned against them. The leaders of the Republican party are beginning to realise that it may be possible to have too much politics in business and too much business in politics. Just now they heartily wish that they could keep them a little farther apart. Both at home and abroad they are getting dangerously entangled with each other. All over the commercial world a "business policy" is demanded, which, strange as it may seem, is not a cry to suit the Americans. It renders domestic politics much more difficult to manage and reciprocity treaties with foreign nations much harder to negotiate. If Europe should prefer American fiscal doctrines to American produce, a flattering balance of trade will be no longer so easy to maintain.

Now that commercial rivalry has become the keynote of politics, home and foreign trade of all kinds will be liable to more frequent disturbances than hitherto, and perhaps also more dangerous ones. Between social classes and between nations new complications threaten, in which industrial interests will play a prominent part. If on one hand they should be the main cause of such complications, they will on the other hand be the principal sufferers from them. Hereafter political

action will be everywhere strongly swayed by them, and they will sway it in turn. Elections will be fought on commercial and financial issues. Every change of President, involving as it may do a new fiscal policy, will be a peril to all industries dependent on the tariff. The greater the magnitude of such industries the more serious may be the resulting disturbance. It is a significant fact that some of the sharpest American panics have been of political origin. The oldest of them in the memory of the present generation was caused by the hostile attacks of President Jackson on the old United States Bank. The youngest of them, that of 1893, resulted almost directly from the success of the Republican party in restoring an ultra-protective tariff.

The Americans have not yet reached that calm conservative frame of mind which regards political and fiscal questions without personal anxiety. The mere thought of a new tariff sends a shiver through whole armies of manufacturers and importers. The mammoth corporations are no less nervous than the retailers. Any fiscal change means the revolutionising of trade as it exists and an entirely new range of values, which may suit some people, and be very inconvenient, if not ruinous, to others. The millionaire Trusts have not yet undergone this ordeal, and it is doubtful how they could stand it. If they should prove, as they easily may, no less vulnerable to fiscal disturbances than ordinary traders are, the Americans would be so much the more handicapped

in international competition. Or should some new monetary issue arise on which the whole country becomes divided, as it was in the McKinley and Bryan campaigns—not at all an improbable event—the millionaire Trusts might be even harder pressed than by a tariff crisis.

Political stability and, above all, fiscal stability are essential to steady commercial progress. There may be huge fortunes made and lost in fiscal transitions, but a nation thrives best when there are fewest of them. This important test our own industrial system should be able to bear better than that of any other country, while American industry would show to least advantage under it. British tariffs change relatively seldom,—too seldom many people are beginning to think. Changes in them are made in a comparatively quiet and unexciting way. The Finance Minister of the day submits his scheme to Parliament of an afternoon, and if not positively objectionable it is adopted with little or no modification. But in Washington a new tariff may be fought over for a whole session, and not only may every member of Congress join in it, but every trade or industry may insist on being heard by special representatives, whom the profane call “lobbyists.”

For this kind of political instability there is no probable remedy. It is inherent in the political life of the Americans, and if it has drawbacks it also has advantages, so it is likely to be maintained. The Trusts will not get the American Constitution altered to suit them, but they may

have to make frequent alterations in their own constitutions in order to suit it. At this moment they do not know how they stand in relation to the law of the country, and the most astute lawyers hesitate to advise them on the point. They are new phenomena in social and political as well as in commercial life. They represent an entirely novel and untried organisation, which has taken on its shoulders nearly the whole weight of the staple industries of the Union. Whether or not they will be able to bear it, and to carry it safely through all the financial and commercial dangers besetting their path, is a matter of doubt. The most sanguine admit that the risk of at least temporary miscarriage is great. Regardless of President Lincoln's homely warning, American industry has changed horses in crossing a stream which may prove deep and full of eddies. The new organisation, with all its gilded grandeur, may not feel quite at home on the Atlantic in rough weather.

But if the American Trusts should be able to steer their way among the political rocks and shoals at Washington, their troubles of that sort will not be over. There are also politicians and tariff-mongers and lobbyists on this side of the Atlantic who will be only too eager to mix themselves up in the fray. Harder to forecast than even the vagaries and vicissitudes of American politics are the impending fiscal developments in Europe. It is certain that they will be more or less antagonistic to American competition, but how much so

there is no saying. Germany will go as far as she dare in defending not only her manufacturers but her agriculturists against the American invasion. Other Continental Governments will in due time follow suit. It is wonderful how easy they find it to copy each other's protectionist experiments. They can always agree about that if about nothing else. And if, as is not unlikely, the British Empire should take up the cry of imperial industry, there will be no more walk-overs for the "American invader."

So far as British markets are concerned, he has probably had his best innings already. His latest raids have not been the brilliant successes he promised himself. The tobacco war, for which he had put up ten million dollars, turned out a gigantic bluff. That time he met more than his match in the Britisher, and was glad to capitulate, in order to prevent the war being carried into his own country. Neither has Mr Pierpont Morgan's shipping deal come off with quite so much *éclat* as it ought to have done. Not a few of Mr Morgan's own countrymen think he came out at the small end of the horn on that occasion also. Mr Yerkes, too, seems to have shed some of his original enthusiasm on behalf of railway electrification in London. These little checks will no doubt have a wholesome effect in toning down the cosmopolitan ambitions of New York and Chicago. They remind all whom it may concern that even American energy has its limitations.

## CHAPTER IV.

### PHYSICAL FACTORS.

#### I. SOIL AND CLIMATE.

THE soil and climate of the United States should be spoken of in the plural number, for they are not one but many. There are as many soils as there are states, and as many climates as there are mountain-ranges. The Rocky Mountains separate two distinct countries, and even the minor ranges produce notable variations of temperature and humidity. When on Pike's Peak in Colorado the thermometer is down to  $12^{\circ}$  or  $13^{\circ}$ , and in the north-west it is only a few degrees above freezing-point, in New England it will be moderately cool—say  $43^{\circ}$ ; in the Mississippi valley it will be comparatively warm—say  $52^{\circ}$ ; and in Florida it will be at summer heat— $75^{\circ}$ . Even in the hottest months of the year there is a range of temperature exceeding  $40^{\circ}$ . The British Empire, though it embraces every climate under the sun, does not achieve greater extremes than the northern half of the American continent.

In rainfall we find equal if not greater diversity.



In the same month there will be over 11 inches recorded at Mount Washington and not a drop in the Rio Grande valley. In the Missouri valley there may be nearly 8 inches, in the Upper Mississippi about 6 inches, in the South Atlantic States  $6\frac{1}{2}$  inches, in the Middle Atlantic States  $5\frac{1}{4}$  inches, and in New England less than  $3\frac{1}{2}$  inches. Such climatic conditions have naturally produced a great diversity of soils, and have demanded many different forms of cultivation. It is nature that has made a great cotton-field of the Southern States, that has converted the Mississippi valley into one of the chief granaries of the world, and that has given over the western prairies to beef-growing. Not the soil alone, but the combination of soil, climate, and other necessary conditions, have enabled the American farmer to become the world's chief producer of beef, corn, and cotton. He has not by any means the richest soil or the largest area of cultivable land. As compared with the British farmer, his average yield of wheat per acre is small—about 12 bushels against the British 30 to 32 bushels. His oat crop per acre is less than three-fourths of our own—29 bushels against 40 bushels; and his barley does not run to much more than half of our average—namely,  $20\frac{1}{2}$  bushels per acre against  $34\frac{1}{2}$  bushels. As regards hay the two countries are almost on a level, the American average of late years having been from  $1\frac{1}{4}$  ton to  $1\frac{1}{2}$  ton per acre, while our own is fully  $1\frac{1}{2}$  ton per acre. But in potatoes the British

farmer has again much the best of it. His crop averages from 4 to 5 tons per acre, which is nearly double the normal yield in the United States. Last year, 1901, the American crop was so short as to necessitate heavy imports from Europe, adding dear potatoes to dear beef, dear bread, and a greatly increased cost of living generally.

Among the many puzzles and paradoxes of American prosperity this is one of the first to meet us—How can the American farmer, with his comparatively light soil, his severe winters and short summers, and his small yields per acre, compete so successfully in markets five or six thousand miles distant from him with farmers who have these markets next door to them? That is the oldest and the greatest marvel of all in American industry. It has faced us for years, and we are no nearer its solution to-day than we were a quarter of a century ago. If we could solve this we should have a key also to the simpler problem of American competition in the iron and textile industries. These are small both in magnitude and value beside the wheat question, but because the former is new and admits of being treated hysterically, it is made a matter of life and death for the British Empire.

The agricultural part of the problem has always been, and still is, of greater importance to us than the manufacturing part. In the whole range of competing industries there is nothing in which we have been so completely left behind by the

Americans as agriculture. The facts here, however superficially we may examine them and however persistently we may ignore their political bearings, are more striking than those of any other industry. It was as food-producers that the Americans got their first start in international trade. Their wheat and beef and cotton exports provided them with the money to build factories and ironworks. Even yet their largest industries are closely connected with agriculture. As agriculturists they scored their first and greatest success. If we had awakened sooner to the significance of that first success we might have been better prepared for the later ones. The fact of British makers allowing a few contracts for railway bridges and locomotives to be snapped up by the Americans would never have scared us but for the much more formidable antecedent question,—How had the Americans got control of nearly all our principal food-supplies? What enabled them to do it—natural advantages, superior enterprise, or our own short-sightedness?

As regards natural advantages, the American farmer is, after all, not much better off than his foreign competitors. He has, it is true, an immense area of land to range over, but it is subject to many deductions before we get at the really useful land. From the aggregate of three million square miles (excluding Alaska and the lately acquired islands) there has to be written off fully one-third (1,094,514 square miles) for woods and

forests. The remaining 1,901,000 square miles is equivalent to 1,235,840,000 acres. Twelve hundred and thirty-five million acres of land may sound formidable beside our own seventy-seven millions (77,675,000 acres, including the Isle of Man and Channel Islands), but we have seen that in productive power one English equals two American acres. The proportion of cultivated to total area is also of course much greater in the old country than in the young one. Nearly three-fourths of our seventy-seven million acres (47,795,000) are under crop or in permanent pasture, while the corresponding ratio in the United States is little more than a sixth. In the last year of the nineteenth century the area under crop or in pasture was 222,764,000 acres out of twelve hundred and thirty-five millions. Eighty per cent of this cultivated area was occupied by four crops—corn, wheat, cotton, and oats—namely,

	Acres.
Corn . . . .	83,321,000
Wheat . . . .	42,495,000
Oats . . . .	27,365,000
Cotton . . . .	23,403,000
	<hr/>
	176,584,000

Evidently in the vast expanse of the American Union there are soils and climates specially adapted to the above four crops, or they would never have acquired the pre-eminence they now enjoy. Corn and wheat in particular seem to have found a congenial home in the great Republic.

But even they are not widely distributed. It is only in the valley of the Mississippi that they have any exceptional success, and in it they have almost reached their full development. The army of free selectors which in recent years has overrun the north-western states, extending up to the Canadian border, threatens soon to exhaust all the unoccupied wheat-lands of the Mississippi valley.

The British consul at Chicago, in his report for the year 1901, makes some pertinent remarks on the wheat area and its geographical limits. His consular district, he says, covers fourteen states, having a total area of a million square miles, with nineteen millions of inhabitants. Of the land still open to settlement, over one-quarter is arid or semi-arid, and much of the other is rough mountain land. "About 85,000,000 acres are annually planted with some of the various grains. *More than half of the grain produced in the United States is grown in this district.* The wheat area of the United States is continually moving to the north-west, as the land on the eastern and middle western states gradually becomes more valuable for other farming, or produces a smaller crop after years of grain-growing."

This account of the north-western migration is borne out by the acreage returns from year to year, which show that the area under cereal crops does not keep pace with the new land broken up. To every increase in the north-west there is an offset in the older sections, where cereals are going

out of cultivation. The result is that corn and wheat show very little progress in their aggregate area. For example, the area under corn in 1900 was almost the same as it had been in 1895, the respective totals having been 83,320,000 acres and 82,076,000 acres. The wheat area expanded considerably between 1895 and 1900—from 34,047,000 acres to 42,495,000 acres ; but the increase of eight million acres is only a fraction of the fifty odd million acres of public lands taken up in the interval. As for oats, its acreage remains almost stationary. The 27,364,000 acres reported in 1900 represented a gain of one million acres over the immediately preceding year, but it was fully half a million acres short of the total of 1895. Barley, again, shows actual retrogression, the area under crop in 1900 having been only 2,894,000 acres, as compared with 3,400,000 acres in 1892, and nearly as much in 1891. In rye a still heavier shrinkage is observable, the 2,364,000 acres cropped in 1888 having declined to 1,591,000 acres in 1900.

Had there been an unlimited amount of virgin land available for cereals the above reductions could not have taken place. But apparently the new land has little more than counterbalanced the wastage of the old. The same may be said of cotton. Since the sharp spurt which cotton-planting took in 1894 it has made little progress either in area or in weight of crop. The aggregate areas of 1894 and 1900 were in fact within a quarter million acres of each other, the



first having been 23,688,000 acres and the second 23,403,000 acres. When the stimulus of abnormal activity cannot produce greater expansion than this in the staple industries of a country, it may be inferred that some insurmountable obstacle, physical or otherwise, has been in operation. That physical limitations exist there can be no longer a question. The Americans themselves will be the first to admit it, for they have always the courage to face facts, no matter how unpleasant or how contrary to preconceived theories.

As to cereals, the fact is that the Americans possess in the valley of the Mississippi one of the heaven-made wheat-fields of the world. There are only two others of similar magnitude and fertility—in Russia and the Argentine. Mr Jared Smith, in a valuable paper issued by the United States Department of Agriculture, says :—

There are in the valley of the Mississippi and its tributaries more than 500,000,000 acres of prairie covered with the characteristic black alluvial soil. It is the largest compact body of alluvial lands in all the world. There are other similar regions of less extent in Argentina and European Russia, in which the black loam lies just as deep and the broad acres are just as fertile, but there is no like extent of territory where the climatic conditions are so favourable to the development of agriculture in its most intensive and profitable state. All plains because of their physical configuration are subject to great and sudden changes of temperature, there being nothing to break the force or alter the direction of the powerful currents which continually sweep over them. But lying as our Western

prairies do entirely within the temperate zone, the conditions there are better than in any other similar region. The prairies are neither devastated by the terribly destructive pampero of sub-tropical Argentina, nor are they subject to the intense winter cold of sub-arctic Russia. . . . The area of the black soils and plains of European Russia is 665,000 square miles (425,000,000 acres), of which 250,000,000 acres, or nearly 60 per cent, may be designated as farm-lands suitable for some form of agriculture. Argentina possesses 740,000 square miles of pampas and plains (473,600,000 acres), of which less than 200,000,000 acres are suitable for farming. The arable prairies of the 13 States and Territories from North Dakota and Ohio to Texas amount to about one-half of their total area, or fully 300,000,000 acres.

Whether Mr Jared Smith be right or wrong in his exaltation of the western prairies over the pampas of Argentina and the black-soil plains of Russia, we can all agree with him that it is to these prairies the Americans owe their ability to undersell every other wheat-producer in the markets of Europe. They have been the open door to the Great West, and through them the foreign trade of the United States first became powerful. They govern the wheat markets of the world, and the New England farmer has found it as hopeless to compete with them as if he were in Norfolk or Essex. But, as Mr Jared Smith informs us, they contain only 300,000,000 acres of arable land, and the greater part of it is filled up, while the small remainder is being rapidly absorbed. The question arises then, What will be the future of cereal grow-

ing in the United States after the valley of the Mississippi is fully occupied? The farming lands east of the Mississippi offer no fresh field. They are almost as thickly settled as many parts of Europe, and much of the soil is as badly worn out. On the other side, what is there west of the prairies? The Rocky Mountains, the Salt Lake, and the alkali plains of Utah and Nevada. Without irrigation they are useless, and when irrigated they may still be too far from Europe to have any influence on our markets. They are not as yet a factor in the international wheat trade, and millions of dollars may be spent on them without making them formidable producers.

In respect of soil and climate the case appears to be, that in certain important but comparatively limited areas the Americans have hitherto enjoyed special advantages. In the southern states they have had unique facilities for raising cotton, and in the valley of the Mississippi they have had equally good fortune as cereal growers. But for these two sections it is doubtful if American agriculture would have cut much of a figure in international commerce. There was little wheat exported from the States when it could only be grown on the Atlantic seaboard and in the Ohio valley. This section is now less likely than ever to appear as an exporter of farm produce of any kind. Neither New York nor Pennsylvania nor New England raise food enough for their own consumption. They are almost as dependent on the western states for it

as Great Britain is. Possibly in another decade they will be consuming all that the west can spare to them, and Europe will be having to look elsewhere to supply the deficiencies of its home crops. Before then the Mississippi valley may be raising food to its utmost capacity, and American ingenuity will be struggling with the deserts beyond to wring new food-supplies from them.

But this, as the Americans themselves fully realise, is to be a very tough problem. Everything else in their agricultural development has been easy in comparison. From the 97th meridian westward are the arid and semi-arid regions, receiving only from 15 to 22 inches of rain per annum. The amount might be sufficient if it were uniformly distributed through the growing season, or if it fell so lightly that it could all be absorbed, but it comes in sudden torrents, and only a small portion of it is caught while the rest is swept away by the streams. A costly system of irrigation may in course of time provide a remedy for these defective rainfalls, but it will require years to accomplish, and as yet only small beginnings have been made. According to the British consul at Chicago, "the question of irrigation and the equable distribution of water for that purpose is becoming of vital importance to many states, and the future of nearly one-third of the area of the United States depends on the settlement of this question. This area includes not only the arid desert but many districts where abundant harvests are obtained in

favourable seasons, but where, owing to drought, total or partial, crop failures are more often the result. The average yield of the semi-arid district for the past five years was placed at 6·7 bushels per acre."

The conclusions thus arrived at regarding soil and climate are—

That both have in the United States a very wide range and corresponding diversity.

That in certain large areas they are eminently favourable to particular kinds of culture, as cotton in the southern states, fruit on the Pacific slope, and cereals in the Mississippi valley.

That these favoured regions, though extensive, form a small proportion of the total area of the Republic, and, moreover, they are approaching the limit of their capacity.

That while these physical advantages continue in full vigour, American cotton and cereals are likely to rule their respective markets in Europe as well as at home. This notwithstanding that the British farmer can raise twice, and in some cases nearly three times, as much per acre as the American, and that the one is five or six thousand miles from his market while the other is often not as many yards.

That the superior fertility of British soil and its proximity to large centres of consumption appear to be more than counterbalanced by greater efficiency and economy in American methods of farming. No doubt American soil is easier to

cultivate, and the weather is less tantalising than our own. But what has told against the British farmer more than all these is his having virtually given up the battle at the outset. The economic oracles of the day impressed it on him that his defeat was in strict accordance with economic law. He was told that the American farmer had a mission to supply Europe with wheat and flour because he could do it cheapest.

The British farmer, blindly following the British politician of the period, surrendered his best markets almost without a struggle. He never set himself, as the American farmer has done all along, to get the most he could for his money out of everybody he had to deal with—his landlord, his labourers, and his machinery. Thus while the natural advantages on the American side were apparently all turned to the best account, those on the British side were oftener frittered away. If the British farmer and the British politician were both to change their tactics and to show some fight for their home markets, the tables might ere long be turned against the hitherto triumphant American wheat-grower. His cheaper soil and superior climate might never have carried him so far if he had met with a little more serious and methodical resistance.

Our final conclusion arises out of these last reflections. It is, that the American advantages of soil and climate are not likely to prove as formidable in the future as they have been in the



past. The westward movement of cereal growing in the States leaves behind it a good deal of exhausted, or at least impoverished, land. The emigrants to Minnesota and Dakota are not foreigners, but Americans from the east. Most of them throw up farms in the older states in order to get larger ones out west. The new soil invariably gives better returns than the old, until in its turn it becomes impoverished by severe and continuous cropping. In some of the comparatively young wheat states inevitable decline in the fertility of the soil has already begun. The southern part of the Red River valley, for example, which only twenty years ago was the champion wheat-grower, no longer pays with wheat alone. Farmers are either leaving it to go farther north or they are changing their system. Mixed farming is coming into fashion, and live stock is taking the place of cereals. Iowa has become the leading cattle state in the Union, and the valuation of its live stock in the recent census (1st June 1900) was \$271,844,000. Minnesota is undergoing a similar transformation, and the best of the wheat belt will soon be in the Canadian north-west.

## CHAPTER V.

### PHYSICAL FACTORS (*continued*).

#### II. PORTS AND HARBOURS.

AN official report on "The Shipping Industry of the United States and its Relation to Foreign Trade" gives the following description of the American seaboard from a shipping point of view :—

The frontier of the United States measures 10,800 miles in length, 5200 miles of which is coast-line fronting on the oceans and the Gulf of Mexico. Besides this there is a lake and river coast of 2100 miles in length. The greater part of this water frontage of 7300 miles is deep enough to admit of shipbuilding in one or more of its several branches. But the naturally favoured localities are those main inlets from the ocean, such as the Chesapeake and Delaware bays on the Atlantic and the Bay of San Francisco and Puget Sound on the Pacific. In addition to these the rivers of the Atlantic slope, in their approaches to the sea, afford some of the world's best locations for shipbuilding. American bays and rivers, furthermore, admit of much greater access to the interior from the ocean than is the case with possibly any other of the continents and countries of the world. Being thus ex-

posed to the ocean on three sides, from numerous points on whose seaboard the interior of the country is reached by river, geographical conditions afford to navigation unusual opportunities for activity.

Turgid and circumlocutionary as the language may be, the fact intended to be stated is indisputable—that the United States possesses all the physical and geographical requisites of a great shipping industry. On its five thousand and odd miles of ocean frontage it has harbours in endless variety. If we had been writing fifteen, or even ten, years ago, we might have said that it had ports adapted to all kinds of sea-going vessels. But to-day that would not be strictly accurate. The strides made lately in the shipping trade have left many American ports in the rear. Some like New York, Norfolk, and New Orleans on the Atlantic side, and San Francisco and Seattle on the Pacific, have kept up to the modern standard, but few of the others would rank as first- or even second-class shipping places. Very few indeed combine 30 feet of water with ample wharfage, which are the modern conditions of a first-class port.

It is a very common, though mistaken, inference from the high development of America's transportation system, that she is favoured with great natural facilities for the distribution of wealth. "Her magnificent waterways" and "her splendid natural harbours" are frequently appealed to in explanation of her marvellous progress. These

are mere rhetorical phrases. The "magnificent water-ways" were going out of date when her great industrial development began in earnest. When we go in search of her "splendid natural harbours" they shrink into three, or at most four. New York is certainly a splendid harbour. Among the ocean gates of the world it stands perhaps highest of all for commercial purposes. Nature has fashioned and finished it for its peculiar use as perfectly as the greatest engineering genius could have done. It is protected more or less from all winds. Inside of Sandy Hook it has deep water and a broad, straight channel all the way up to the wharves. Twenty miles of plain, smooth sailing takes a vessel up from the Hook to its berth in the East or the North River, where it can moor alongside of its own sheds and warehouses.

But the unique advantage of New York lies in its unrivalled wharfage accommodation. Manhattan Island, enclosed in two arms of the Hudson River, offers a continuous water frontage, which has only required to be piled and a roadway made along the waterside in order to furnish miles of accommodation for shipping. On the Brooklyn and New Jersey sides, though more artificial adaptation has been needed, ships can also lie close to the water's edge and discharge right into the railway cars. The North and East Rivers are virtually two immense docks encircling the city, and easily accessible from all parts of it. What has cost

London, Liverpool, and Glasgow millions on millions to do imperfectly, New York found ready to hand. Nature made her a present of it, and a richer gift no commercial city could well desire.

The Morgan shipping combine was at first welcomed in New York as a bold stroke of local enterprise. It cleverly professed to be a New York movement to defend the metropolitan port against ever-growing rivalry, domestic as well as foreign. On this ground it was generally supported by the shipping interest on the Hudson River. According to the local correspondent of the 'Standard,' part of the programme was to prevent undercutting on through rates from the West to Europe *via* outports. The latter have in the past decade undergone great development, due partly to liberal appropriations from Congress, and partly to the vast improvement the Atlantic coast railroads have made in their terminal accommodation. Two roads in particular—the Chesapeake and Ohio, and Norfolk and Western—have created harbours for themselves on the Chesapeake Bay. They were compelled to it by their rapidly growing export trade from the new coal-fields of West Virginia. In order to get an additional outlet for their coal to the West, they formed connections with Chicago and the Great Lakes. This brought them almost unintentionally into collision with the eastern trunk roads—namely, the Vanderbilt, Pennsylvania, Baltimore, and Ohio, Erie, and other systems—

which had hitherto monopolised the through traffic from the West to Europe.

The Chesapeake Bay roads, finding that they had all the necessary facilities for European traffic, launched into it. Being handicapped by longer and more roundabout routes than the New York-Chicago roads, they had to bid for business in the usual way by undercutting rates. As they had their own Atlantic lines, and their own wharves, they could handle freight cheaper than New York. They had, besides, the advantage of being their own masters from beginning to end of the route. Their competition, though pooh-poohed at first, gradually became serious for the northern roads, which took up the question with characteristic energy, and settled it, for a time at least, by getting control of their southern competitors. This carries with it practical control of the two southern harbours as well, and now the shipping interests of New York hope to re-establish their supremacy more firmly than ever. At the moment they appear to have the upper hand at Philadelphia, Baltimore, Newport News, and Norfolk. The only really open ports left on the American section of the Atlantic coast are Boston and Portland. The latter, as the ocean terminus of the Grand Trunk Railway, is a sort of Anglo-American port, and its mixed character may give it a peculiar *rôle* to play in relation to the Atlantic shipping ring. But that is only one of many anomalies in the situation.



Among the younger American ports on the Atlantic those on Chesapeake Bay are the most interesting. Norfolk especially appeals to British sympathy, for its whole history is crowded with British associations. It is the oldest and most historic of Virginian ports, next to Richmond itself. The city archives record that away back in the days of the Stuarts the General Assembly of Virginia authorised the purchase of land for a port near Hampton Roads. Richmond did most of the tobacco shipping, but being a hundred miles or more up the James River it was not very accessible, even to the insignificant shipping of that day. To Southern Virginia it was of little service. This section of the State had to form a new market for itself at Lynchburg, and from Lynchburg the best outlet seaward was at the mouth of the Chesapeake Bay. Hence the selection of Norfolk.

The good old English name goes back to the days of Queen Bess herself. One of her cavalier colonists had established himself in the nook where the old town now stands. He was a Colonel Thorogood, from Norfolk, and like a loyal Norfolk man he gave to his new quarters the name of his native county. A half-farming half-fishing hamlet grew up on it. The people had to build their own boats, and toward the end of the seventeenth century they produced a shipbuilder of some local note. His shipbuilding-yard descended to his son, Nicholas Wise, who carried on the busi-

ness, combining with it village carpentry. He had land and to spare, so when a site was wanted for a new port he gave off a block of fifty acres, and was not difficult to arrange with about terms. The price agreed on was ten thousand pounds, not sterling, but of tobacco. Norfolk proved a wise choice. Ships came to it, and found in it both water and shelter. Settlers gathered round it, and population multiplied. In its jubilee year Norfolk thought itself worthy to petition the local government for the honour of becoming a royal burgh. The claim was granted in 1736, when Norfolk received its royal charter authorising it to set up a mayor, a recorder, and a council of eight aldermen.

Early last century Congress added to Norfolk's prestige by selecting part of the inner harbour for a navy-yard. This was the beginning, in 1801, of Portsmouth Harbour, as distinguished a place in the annals of the American navy as our own Portsmouth is in English history. Hampton Roads, where the Monitor and the Merrimac had their famous duel in the first days of the Civil War, is a magnificent sheet of water, where countless ironclads could ride in safety. It forms a broad short channel, running nearly east and west, through which the waters of the James River pour majestically into the Chesapeake. Coming down with a south-easterly current from Richmond, on nearing the coast they take a broad sweep southward, and returning north break through the narrow

neck of land which may have originally separated the Chesapeake and the James River. This broken neck is now divided into two peninsulas—a long one on the north side which terminates in Newport News and “Old Point Comfort,” and a short one on the south whose most salient feature is Cape Henry, facing the Atlantic.

The bay, which has been scooped out by the southerly sweep of the James River, is a broad, well-sheltered sheet of water. For safety and accessibility there is nothing to compare with it on the Atlantic coast south of New York. It is a series of harbours opening into a grand roadstead — Portsmouth in one corner, Norfolk in another, Lambert's Point a little farther round. Enough water front has already been taken possession of to provide for fifty years' growth. Norfolk, Portsmouth, and Lambert's Point are fast becoming places of consequence, each in its own way. The great increase which is about to be made to the United States navy will necessitate a corresponding enlargement of the principal navy yard on the south coast.

The Norfolk and Western Railway has long outgrown the old town as a terminus. It still does its passenger and general freight business there, but the coal traffic has had to be specially provided for in a more favourable location for heavy shipments. A few years ago it became evident to the Norfolk and Western directors that they must go farther out in the bay with their

coal-piers; accordingly they secured at Lambert's Point, five or six miles from Norfolk, an ample site for an ocean terminus. Here they have run out a substantial pier into twenty-six feet of water, where large steamers can have coal shot into their holds direct from the cars. It has proved equal to the shipment of a hundred thousand tons per month—over three thousand tons per day. A large addition is now being made to it, which will more than double its capacity. The Pocahontas coal mines are turning out twenty thousand tons a-day, and the total movement on the Norfolk and Western road exceeds seven million tons per annum. Thousands of tons of pig-iron are also coming east from the Cripple Creek, the Shenandoah valley, and even from Alabama. Ample facilities for it have been provided at Lambert's Point, and it is also intended to transfer the bulk of the cotton business to this new port. Close to the coal-pier thirty acres of foreshore are reserved for presses and warehouses.

Another scheme *in futuro* is to have stock-yards for shipping cattle direct to New York and New England. In these spirited enterprises the company is being well seconded by local capitalists who appreciate the value of its labours. Lumber-yards, tinplate-works, canning establishments, and shipbuilding-yards are all in contemplation.

## CHAPTER VI.

### PHYSICAL FACTORS.

#### II. PORTS AND HARBOURS (*continued*).

SOUTH of Chesapeake Bay the most important rival to New York is New Orleans. Unlike New York, it started with few natural advantages. No port could indeed have had fewer. When the French explorer, Bienville, made his first voyage up the Mississippi in 1699, he had to cut his way through drift and snags, the description of which recalls recent accounts of the sud in the Nile above Khartoum. When the French Government in 1726 initiated that long and checkered course of river improvement which culminated in the Eads jetties, the depth of water was only 6 or 8 feet, and there was a bar across the mouth of the main channel which had often not more than 4 feet of water on it. Primitive dredging operations were carried on all the time, but their effect was very temporary, and when the Mississippi came under the control of the United States its condition had not materially improved. Nothing of a national character was undertaken

until the settlers who had come down from Kentucky, Tennessee, Ohio, and the middle states insisted on some help from the Government toward opening up navigation.

Congress at last took action, and in 1829 the first of a long series of experiments was begun at the public expense. Boats were put on to clear out snags, sharp bends were reduced and the channel straightened, the bottom was harrowed and stirred up in order that the mud might be carried away by the current. Still no permanent benefit was gained, and what to do with the Mississippi remained a very perplexing question until Mr Eads came along and proposed a solution which has proved both simple and effective. When he appeared early in the 'Seventies, engineers were divided in opinion between cutting a new mouth for the river and making it cut a new mouth for itself. The latter was Mr Eads's idea. At this time a Senate committee was sitting on Transportation Routes to the Sea-board, and schemes were invited for its consideration. They were at length sifted down to two—the so-called Fort St Phillip Canal, estimated to cost eight million dollars, and the jetty plan of Mr Eads.

Congress was divided on them, as it is now on the Isthmian Canal routes. The House of Representatives adopted the canal scheme by a large majority, but the Senate favoured jetties. It referred the question to a technical commis-



sion of seven engineers—three from the army, three civilians, and one from the United States Coast Survey. In January 1875 the experts reported in favour of the jetties, and Mr Eads promptly submitted a tender for their construction. A bill was at once introduced embodying this proposal, and in the following March it became law. The terms of the contract were that Captain Eads should, within thirty months, have formed a channel 20 feet deep and 200 feet wide at the bottom. Thereafter he was to receive \$500,000 for every additional 2 feet in depth, with corresponding widths at the bottom, until a depth of 30 feet and a width of 350 feet had been obtained. His total remuneration was to be five and a quarter million dollars, with \$100,000 a-year for twenty years to keep the jetties in repair.

For those days this was a gigantic contract, but it was honourably and successfully carried out. The official account says that, "after surmounting innumerable engineering difficulties and embarrassments of the most formidable kind, Captain Eads achieved a glorious triumph in his great undertaking, and the jetties were practically completed in July 1879." The effect of the scouring process caused by the jetties was marvellous. In June 1875, before they were begun, the depth in the channel was 10·2 feet. The operations of a single year increased it to 23 feet, until in 1879, the year of their completion, the depth

ranged from 27 feet in March to 31·7 feet in December. In 1883, four years after their completion, the range was from 30·2 feet in January to 33·4 feet in June. Many engineering miracles were performed during the nineteenth century, but there were few to equal in rapidity and success the deepening of the mouths of the Mississippi. Nor have there been many engineering works of such immense commercial value. It raised New Orleans at a stroke from a fourth-class to a first-class port.

New Orleans, however, did not enter at once into full enjoyment of her new privileges. Heavy dues had to be imposed in order to meet the charges entailed by the Eads jetties. The wharfage and other harbour accommodation had to be greatly enlarged in order to cope with the enormous increase of business which inevitably followed the creation of a 31-foot waterway. Here a construction company came in and made a capital bargain with the local authorities. The Louisiana Combination and Improvement Company obtained a concession to work for twenty-one years all the wharves and landings of the port. It was authorised to charge 12 cents per ton on every vessel coming alongside of a wharf, whether it remained one day or two months. All other charges were correspondingly prodigal. The local stevedores formed a close corporation, and even black labour became a highly paid monopoly. New Orleans deservedly acquired the reputation of

being about the most expensive port in America. As one old skipper said, "You can't look in there under a thousand pounds."

But great reforms are now taking place which promise to remove the scandal of exorbitant charges without diminishing the recognised efficiency and smartness of the port service. On the expiration of the Louisiana Construction and Improvement Company's concession a specially created Board of Commissioners assumed control. Their first official act was to abolish the 12-cent-per-ton rate and substitute for it a sliding scale of 2 cents per ton for the first three days, 1 cent per ton for the next three days, and so on up to 9 cents per ton for a maximum of 36 days. Seeing that a week or ten days is the average time for discharging and reloading, the new tariff will be little more than one-half of the old one. Further reductions and economies are promised all along the line. In their first annual report the new Commissioners "feel that from the results of the first year's administration, and with the continued increase of tonnage of vessels occupying the public wharves, after the improvements to the wharves and roadways are completed they will be enabled to take advantage of the powers given them in the Act creating the Board to further reduce the wharfage charges."

Such a prospect may be very pleasant for New Orleans, but it is calculated to inspire different feelings in New York. The principal port of the

Gulf of Mexico and the outlet for the greatest of American waterways, now that it is capable of utilising its geographical position to the utmost, will henceforth be no secondary factor in the world's commerce. Again and again far-seeing Americans have predicted the most brilliant future for New Orleans. In their opinion it is one day to be the principal port of the United States—its largest ocean gateway. Mr Jay Gould in his later years held that view, and was shaping his railroad policy by it. A still greater railroad man, Mr J. J. Hill of the Great Northern, holds it very strongly. He considers that the trunk roads from the west to the Atlantic coast are already overcrowded with traffic, and that it will be impossible for them to cope much longer with its phenomenal growth. Most of them have nearly exhausted their terminal accommodation at the seaboard, and adequate extension of it is becoming financially impossible. The only alternative will be to find new outlets to the ocean.

The direction in which relief must be sought is, according to Mr Hill, the Mexican Gulf. Railroad extension is already turning in that direction, and just as thirty years ago all roads were said to lead to Chicago, so now many of them lead to New Orleans. Herein we have another of the many anomalies in the commercial development of the United States. The opening up of the Mississippi was naturally of great benefit to the river traffic, but that was nothing compared with the stimulus

it gave to railroad traffic. The resurrection of the South would seem to date from the elevation of New Orleans into a first-class port. On the local railways it had an almost magical effect.

As a railroad centre New Orleans is now the equal, if not the superior, of New York, and is not far behind Chicago. It has a greater extent and variety of country tributary to it than any other city in the Union. It is a cotton port for the southern states, a grain port for the whole of the corn and winter wheat belts, a fruit port for Central America and the West India Islands, a transit port for Mexico and the Pacific coast, and one of the great ocean gateways for international trade. Moreover, it dominates the Gulf of Mexico—a commercial world in itself. Cuba, Jamaica, the Caribbean Islands, Mexico, and the coast of Central America have future possibilities which can be appreciated only by close observers like the merchants of New Orleans. Cuba alone would have furnished employment for a dozen regular lines of steamers if protectionist senators had not insisted on treating the Cubans worse than the Spaniards had ever done, commercially speaking. But that fiscal blunder will be corrected in due time, and New Orleans will come into the full benefit of its Spanish legacy. Later on—but who knows how many years?—the Isthmus will be cut and the two oceans united. What New Orleans may grow to then is a theme to which only American eloquence could do justice.

Nearer home there is the sister republic of Mexico, in which the Americans are greatly interested, financially and commercially. Though they do not talk so much about it as about some other of their neighbours, they think all the more. Mexico simply swarms with American pioneers of all grades, from the reputed millionaire to the irrepressible drummer. They overrun the country from the Rio Grande to Guatemala. They control the trunk railways, and they have conferred on the Mexicans at least one great boon—a deep-water harbour—Tampico. This is so thoroughly American in every way that it may almost be ranked with American harbours. It was modelled on the masterpiece of Captain Eads—the New Orleans jetties—and it marks the furthest advance the Americans have yet made in a branch of engineering which they consider peculiarly their own. In the same way Sir Weetman Pearson's splendid harbour works at Vera Cruz may be claimed by us as the highest type of British engineering of their class.

Tampico is worth describing here, not merely for the sake of its American connections but as a typical American port. In shipping competition the port counts nowadays for a good deal, and in future it is to count for a great deal more. Were we to affirm that shipping profits are made or lost in port, the paradox would be rejected at once by the average reader, but many shipowners would admit its absolute truth. Often the dock charges and,



what are still more serious, the delays and detentions in harbour, turn the scale on a voyage. This is one of the many valuable conclusions arrived at by one of the most useful Commissions we have had for years, that on the administration of the Port of London. The Commissioners in their report show that loss of time in port may be more costly to shipowners than high charges. In support of this they quote the chairmen of two of our largest steam lines, the Peninsular and Oriental and the British India.

Sir Edwyn Dawes expressed himself thus strongly: "It is despatch more than anything else that we want, owing to the increasing value of the ships we employ." Sir Thomas Sutherland and other representative shipowners spoke to the same effect. And the Commissioners have summed up the case fairly in these words: "Not only does the greatly increased capital value of modern ships make it necessary that they should earn profits without waste of time, but the punctuality to dates due to the use of steam-power makes it most important that the time of vessels competing for trade with other home and foreign lines should be calculated with a near approach to certainty. *The main complaint of large shipowners with regard to the Port of London is, that such despatch and punctuality are not easy to reckon on.*"

In all American up-to-date ports "quick dispatch and punctuality *are* easy to reckon on." Atlantic liners cast-off from their wharves at New York

with the punctuality of railway trains. In new ports like Tampico, where there has been an opportunity to plan everything beforehand from the foundation, they aim not merely at punctuality but at the quickest possible despatch. Everything is arranged for transferring cargo from steamers into cars or from cars into steamers in the most rapid manner, and with the smallest possible amount of handling. The custom-house, the wharf, the steamer, the railroad track are all brought as close together as they can be, and they work into each other as if they were parts of one great machine. If a director of the London and India Dock Company were dropped down on the new wharf at Tampico, he would see at a glance that his own methods were half a century behind. He could not believe that Mexico—half-civilised Mexico as he perhaps considers it—had in a matter so peculiarly English got so far ahead of us. There is a touch of tragic humour in the case, but the fact itself is not to be got over. For London to be beaten by New York and New Orleans is hard enough, but to have to lower its colours to a half-breed Mexican town squatting on a narrow river, very much as the Spaniards left it wellnigh a century ago, is humiliating.

For a creation of the past ten years Tampico is indeed a wonderful place, and reflects great credit on its American renovators. It has a combined harbour and railroad terminus—the railroad being

the Mexican Central. The backbone of the scheme is a brand-new wharf about half a mile long, and a thing of beauty as well as of utility. It fronts the stream in an almost straight line, and when the required depth of water has been obtained by dredging, steamers will be able to run up alongside at any time. It rests on piles driven 25 feet into the river-bed, and on cylinders rising 50 feet above the piles. Over the cylinders are laid steel girders which are ingeniously floored with arches of galvanised iron covered with cement. Over the cement strong timbers are laid to carry the rails. Of these there are four separate tracks, with wide spaces between, so that the total breadth of the wharf must be considerable. An elegant roof of girder work gives a bright artistic finish to the structure, quite unusual either among railway sheds or dock buildings. All the equipment is in the same luxurious but businesslike style—electric lights, hydraulic cranes, &c. Any one coming on it suddenly, without knowing its object, might imagine that it was a huge conservatory.

At the rear of the long wharf, and separating it from the track of the Mexican Central, is a three-million-dollar custom-house, quite a palace in its way. In fact, Mexican bondholders of censorious disposition might consider it a rather heavy job to have been done entirely on credit. But the Mexical Central authorities think there will be no difficulty in earning the charges on the three million dollars. If the local trade continues to

grow as it has done for several years past, the whole of the accommodation which now seems so gigantic will soon be required. Elegance, they say, has not been obtained at the expense of efficiency. On the contrary, everything has been designed to do the best and quickest work possible. The most modern English dock could not live alongside of an open riverside wharf like this, equipped throughout with the latest working appliances.

## CHAPTER VII.

### PERSONAL FACTORS.

#### I. THE WORKMAN.

ONE of the many surprising things said about American industry by Americans themselves is that the American workman, though the most highly paid of any in the world, turns out the cheapest work. He is declared to be more industrious, more adaptable, and more intelligent than his British cousin. Without intending or desiring to hold a brief for British trades unionists, I must admit that this is not an assertion to be accepted offhand. Frequently it is untrue or exaggerated, and in all cases inquiry into the special circumstances is desirable. Not long ago I saw it asserted in an American consular report that American bricklayers can lay three thousand bricks a-day. As a matter of fact, two thousand is considered a good day's work, and then it is a different kind of bricklaying to the English.

Personal inquiry and observation have convinced me that American bricklaying is inferior to our own in several ways. The walls, instead of being

bonded in alternate courses as with us, are bonded only in every tenth course. Ordinary walls are two bricks thick, and the usual method of building is to run up nine or ten courses on one side, then the same number on the other. Properly speaking, they are two  $4\frac{1}{2}$ -inch walls until the bond is put in at the ninth or tenth course. This method allows the men to work faster than they could do on the British plan. Seven or eight of them, standing in a row, put a whole course in at one time. They first lay the required bricks within easy reach, next they spread the mortar in a continuous line on the preceding course, finally they lay the bricks on the mortar with very little adjusting, and another course is complete. On that they spread a fresh layer of mortar and lay the bricks on it as before. It is not difficult to believe that a bricklayer can lay two thousand bricks a-day in that fashion; only it is not a kind of bricklaying with which our own may be fairly compared. A British workman, living up to the old-fashioned standard of a thousand bricks per day, would be giving as good value for his wages as an American would be doing with his two thousand per day.

Again, we are told that the American engineer gives a better return for his high wages than a British engineer does for his smaller wages. It is sometimes put in another way—that the American employer gets more for his money than the British employer. Here again generalisation is apt to mislead. The idea conveyed to the British reader



under various forms of words is that, man for man, the American engineer is more profitable to his employer than the British engineer, and that he will produce a given article at lower cost notwithstanding his higher wages. But the comparison is not between two men or sets of men. It is between two engineering establishments differently organised and doing their work in ways that have nothing in common. Take boiler-rivetting, for example. In an English or Scottish shop it will all be done by hand, and of necessity by skilled workmen. In an American shop it will be done by machinery requiring no skilled attendants save a few overseers.

What we have here, therefore, is a comparison of skilled with unskilled labour, or of hand labour with labour-saving machines. Assume that in an American shop three ordinary labourers with a machine can do as much of a certain kind of labour as six engineers without a machine usually do on the Clyde or the Tyne. They will be better paid, of course, than English labourers of their own class, but not so well paid as the English engineers they work against. It is absurd, and no less disingenuous than absurd, to compare two such different classes of labour. The true comparison lies between the machine-work and the hand-work. Take the case of the pneumatic rivetting-machine which is being exploited by the omnivorous Steel Trust. The Americans claim for it that it renders skilled labour superfluous in fixing ship's plates.

They have also at one of their new shipbuilding-yards an electrical trolley arrangement which fits the plates quicker and more exactly than can be done by hand. The two employed together can, it is said, fix eighty tons of plates per day. No skilled labour is required in either case except for overseeing.

If all be true that is alleged of these wonderful machines, not only the rivetters on the Clyde, but the shipbuilders as well, might tremble for their supremacy. It would not be a mere competition between English and American labour. Two kinds of shipbuilding, the old and the new, would have to face a struggle for existence. In these circumstances it is satisfactory to learn that the Clyde builders are not pooh-poohing the pneumatic rivetter as they might have done a few years ago. I believe they are testing it, and their opinions are much divided as to its merits. Some builders hold that its work is inferior to hand-rivetting, and no one seems to admit that it is either distinctly better or more economical. Judgment has, in fact, been reserved.

The American workman is not always to be set above the British workman simply because he has a greater command of labour-saving machinery. It often happens that the Americans running the machines have English or Scottish foremen over them, — frequently, also, English or Scottish engineers and managers. At Cramp's shipbuilding-yard in Philadelphia most of the heads of

departments are Scotsmen, imported from the Clyde several years ago. This is no question of our engineers having lost ground either in skill or intelligence. The best testimony that they have not is borne by the Americans in being so ready to employ them. It is a question rather of new methods, which demand versatility instead of British thoroughness. Work requiring a seven years' apprenticeship on the Clyde can, it is said, be equally well done at Philadelphia or New London by a machine which requires only a few weeks', perhaps only a few days', training to run it.

The typical American workman will undertake to learn any sort of machine-work in the shortest possible time. No matter what he may have been before, he will put aside all his old knowledge and throw his mind wide open to the new. His tendency is to become a machinist pure and simple, and he may be a man of many machines without being an engineer in the old-fashioned British sense of the term. But the future may be for him rather than for his more carefully trained, if less versatile, rival. The only way to prevent that will be for the British workman to become more adaptable and less prejudiced against labour-saving appliances.

One point in which the American workman is *sui generis* is his ingenuity in lightening his work. Even the baggage-smasher has discovered that there are easy ways of doing most things. One

man can lift a weight with half the effort another man has to exert. The American has a genius for finding out easy ways ; also for inventing tools to the same end. There is no "main force and stupidity" about him. He is seldom to be seen tugging and tearing away at heavy weights with his bare hands as British labourers generally do. He is sure to have some mechanical aid, if it be only a hook or a lever. And it is often surprising how much a very simple-looking implement will do for a man. At any of the lumber-mills out West quite an instructive exhibition may be seen of labour-saving contrivances, not one of which has perhaps ever been thought of elsewhere. First, the logs are brought out of the woods on a narrow-gauge railway. Next they are thrown into a big pond close to the saw-mill. As needed they are hauled up by an endless chain to a table adjoining the band-saw.

This table is perfectly automatic, and with two men to watch it, it can slice up heavy logs in half a minute. With a forward movement it pushes the log against the band-saw, which passes through it as if it were paper. When a cut is finished it draws back the log and starts again. When the log has to be turned round, an iron arm shoots up at the side and tosses it over with a bang. The boards are carried away on endless bands to the planing and grooving machines, which generally have a line of railway trucks standing alongside of them. In ten minutes after the log was hauled

out of the pond it may be loaded on a railway truck in the form of beams, scantlings, and floor-boards. To the last it is moved mechanically. The men loading the cars use a peculiar kind of lever-hook with a long handle, which gives them double the purchase their bare hands would have. A British labourer would at first be quite at sea among such contrivances. He would never invent them for himself as the American has done. More likely he would continue to tug and rive at heavy weights with the uneducated muscle-power, which is his whole stock-in-trade.

The motto of the British trade unionist, "Make the work go round and let as many men as possible have a share of it," has no parallel in the United States. But it has a counterpart with precisely the opposite effect—"Get the work as far as possible to do itself," or, as the Americans themselves express it, "We work hard finding out how to avoid work." Economy of muscular effort is the keynote of American industry in all its branches. It applies equally to labour and capital. It is a principle with employers and an instinct with workmen. From the log-hut to the biggest packing-house in Chicago it is the rule. Out west, where "hired help" is almost as great a luxury as diamonds, a lady will do in her own kitchen as much cooking in a few minutes as the average product of a London registry office could get through in an hour. Of course she has her kitchen specially organised and fitted-up for speed.

On the farm her husband will do as much work in a day as could be got out of a Devonshire labourer in a week or more. And there will be less waste of human muscle in the process.

Nowadays there are few farming operations which cannot be done out west by machinery. Implement-makers are busy all the time inventing novelties and improvements. Each season brings with it new styles of ploughs, reapers, threshers, &c., as well as of cycles and motor cars. Farmers buy them all as they come along, and it is becoming a craze among them to have a great display of machinery in their farm-yards. As a rule the machines are badly cared for when not in use, standing all the year round in the open air, rain or shine, and consequently they are, like the American locomotive, short-lived. It is taken for granted that long before they can be worn out something better will be in the market.

Much as one may be compelled at first sight to admire all this, on further examination he will probably see that even labour-saving machinery may be overdone. The extent to which it is now carried in American farming borders on exaggeration. Throwing aside expensive implements merely because they are a little out of date may become wasteful. The American farmer can afford to do it so long as he gets 70 or 80 cents per bushel for his wheat; but when wheat returns to 50 cents per bushel, as it is certain to do when all the new farms in the north-west begin to turn



out their millions of bushels, there will be less to spare for the implement-maker. The present effect, however, of these superabundant machines is marvellous. It has enabled the western farmers to make a great spurt in wheat-producing, and to meet a suddenly increased demand from Europe in a way that European farmers could never have done even if they had had a boundless prairie to draw on. But an organisation that meets an emergency with success may be found top-heavy when the emergency is over.

We have to do here, however, only with the effect of labour-saving machinery on the American workman. It has influenced him in many ways. Apart from increasing his efficiency as a workman and the amount of his output, it has raised his character and enlarged his mind. It has made him easier to deal with both as an employee and as a citizen. It puts him on more equal terms with his employer. Wherever a little skill or judgment are required of him he ceases to be a mere drudge to be ordered about. A wise master will consult him instead of giving him orders, and will often get useful hints from him. The American loves a machine as the Englishman loves a horse. He takes a personal pride in its working, or as he would say, "in running it for all it is worth." He has no temptation to limit its output or to scamp its work. In fact, he could not often scamp with it if he tried. The finer the work the smaller his power to scamp. Fine

machines are all set to a gauge, and the slightest variation would be speedily detected by the boss.

When our trade unionists abandon their suicidal antipathy to machines—a healthy change of which there are already some hopeful signs—several of their other fallacies will have to follow. “Making the work go round” will become an obsolete doctrine. Restricting output will in its turn have to give way. The “ca’-canny” system altogether will have to go, or rather it will have to be exchanged for a more sensible kind of “ca’-canny.” Workmen will spare their muscles not as hitherto by doing as little as they can but by transferring as much as possible of their work to machinery. American experience has demonstrated, even to the satisfaction of some trade-union leaders, that machinery does not supersede hand labour but increases it. There was never in all history a better labour market than the United States of to-day—a country so full of machinery that you can hardly turn round for it.

If a blessed transformation like that were carried out in the minds of our British workmen they would not have much to fear from the Americans. Man for man they are quite as capable if they would only give themselves fair play. Toward that the first step is to adopt the American idea of labour-saving machines—namely, that instead of being the workman’s enemy they are his friend to help him upward to higher kinds of work. Nothing in American industry is so striking to

Europeans as the upward march of labour. There is always going on a continuous progression from the lower to the higher ranks. Wave after wave of immigrants pours into the country, begins at the bottom, and rises stage by stage. This is not merely a personal movement, it takes in races and nationalities. The latter have generally a gregarious tendency which draws the mass of them into one field of employment. By-and-by they quit that and move into another field, while a different nationality will crowd into the field they have left.

Without going farther than New York one may see how various kinds of labour are nationalised. Twenty years ago all the hotel waiters, the boot-blacks, and the fruit-vendors were negroes. To-day the hotel waiters are chiefly Irish, white hooligans do the boot-cleaning, and "Dagos" or Italians monopolise the itinerant fruit trade. On a much larger scale the labour waves may be found operating in the mining districts. The anthracite coalfields of Pennsylvania, where a disastrous strike was lately in progress, were opened up originally by Cornish, Welsh, and German miners. In due time as other coalfields were discovered farther west these people were attracted hither by higher pay and more comfortable conditions. Many of them kept on going west from old mining districts to new ones until they reached the Pacific slopes. Then they turned back and tried silver-mining in Colorado, which perhaps

they threw up for copper-mining in Michigan. From copper they may have drifted into iron-mining on Lake Superior. Now they are frequently to be found in high positions as managers of big mines.

To come back to the Pennsylvania coalfields, the exodus of the Cornishmen and Welshmen was made good by successive importations of foreigners. The coalowners sent out recruiting agents all over Europe, who returned with shiploads of Scandinavians, Hungarians, Russians, Italians, and even Greeks. Among these a natural weeding process went on, and the best of them, as they learned their work, went west to the better paying mines. But for every man who left another two or three were imported. The anthracite mines were always kept crowded, and though good men might be scarce, there was invariably a state of congestion in the lower ranks. Every fresh draft from Europe was rougher and rather less civilised than its predecessor,—a condition similar, in fact, to the invasion of our own East End by foreign Jews. The supply being unlimited, the stream flows on for ever.

From this chaos of raw material American industry draws its labour. By a process of education, in which machinery plays an important part, the ignorant Scandinavian or Hungarian is transformed into a more or less skilled labourer. As he becomes Americanised he grows brighter, begins to use his head to save his hands, and

ultimately he falls in love with the inevitable labour-saving machine. On the railroads a similar labour movement is always going on. While the actual operation of the road is invariably in American hands, foreign labour is always needed, especially in summer, for the maintenance of the track. As soon as the frost is out of the ground armies of labourers are turned on to make repairs. These have to be compressed into the short summer season, which, unfortunately for the road-masters, is also the busy season, and special arrangements have to be made to ensure even a minimum of necessary work. Almost every year a fresh experiment has to be tried. As long as Italians could be got for a dollar or a dollar and a quarter per day, they were preferred. But it is years now since they would accept that. The best alternative would have been Chinamen, but they are barred by an enlightened Congress. As the next best course Japanese were tried, but they would often lose their heads when they saw a Mogul locomotive bearing down on them, and get run over by their own hand-cars. Now the western roads are experimenting with Arabs and Armenians. Next year some of them may be trying Tartars or Laps.

Like Shakespeare the American labourer is a creature of infinite variety. He is of all races and kindreds and tongues. Colour is of no consequence with him, and creed counts for little. Nothing cuts much figure in his life except the

inevitable machine. It is his tin god, and he thinks there is no other god like it. When he has not a machine of some kind to work with him and encourage him, he can look almost as dazed as a mud-scraper in the Strand trying to count out his regulation number of shovelfuls per hour. If the mud-digger had a machine to play with he would soon become a different being. Even in America the mud-diggers and other drudges who have no button to press or lever to pull are liable to lapse into melancholy.

Although the paramount distinction of American labour is a love of machinery, there are other distinctions worth taking note of. The term skilled labour, for example, has a different meaning in the United States to what it has in Europe. With us a skilled labourer is a man who has served a long apprenticeship—five, six, or seven years, as the case may be, to a recognised trade. In addition, he may have had to pass various examinations and acquire certain certificates. He may also have to be in full membership of some trade society. All these qualifications give him a status which may be more or less deserved, but they may be no guarantee to his employers of good honest work. A long apprenticeship is not an alluring prospect at any time, but when, instead of being made easy, it is hedged round with obstructions and discouragements, it becomes a barrier instead of an open door. Discountenanced by trades unions and lukewarmly supported by employers,

it is becoming more or less of a farce. Soon it will be another of the many make-believes with which our industrial system is honeycombed.

The Americans have quite another idea of skilled labour. A man may learn his business where and how he pleases. Cases have occurred of his learning it through correspondence classes, which are becoming an institution in the States. However vague his qualifications a pushful man never lacks opportunities of getting into a trade. Some one will give him a start, and patentees will always be glad to see him. The new machine requires trained men to operate it, and the inventor has generally to train them himself. It was so with the linotype, which the printers' unions would have vetoed if they dared, but they knew that the company owning it was ready to step in and provide operators trained by itself. They found discretion to be the better part of valour and allowed the society printers to work the machine. American skilled labour is created to a large extent by these indirect means. Demands arise every now and then in connection with new inventions or improved processes for a new supply of raw labour. The result is a fresh creation of skilled labourers. Their skill may be narrow—so narrow that they should properly be called specialists. But the United States has an enormous number and variety of such men.

The kernel of the labour question as between Europe and America appears to be this. In



America it is assumed that every labourer, however low down in the scale, has brain as well as muscle. He is encouraged to use his brain and to save his muscle for his old age. Both for brain work and muscle work he is better paid than are corresponding labourers in Europe. But—and here the secret of the matter lies—the Americans contrive to get out of unskilled labourers a vast amount of work which only skilled labourers can do—or at least are allowed to do—elsewhere.

## CHAPTER VIII.

PERSONAL FACTORS (*continued*).

## II. THE "BOSS."

THE "boss" is an American institution. Both the term and the thing are transatlantic. When the Americans boast of the large amount of work got out of their workmen they do not often explain how it is done. If they were to do so the boss would figure considerably in the explanation. He is the man who sees that everything is kept running at full speed. A highly organised system of surveillance covers the whole field of American industry. This may sound incompatible with popular notions of the land of freedom, but it is the fact. And when understood it will be found in the main quite justifiable. In judging a matter of this sort we have to remember the immense diversity of American labour,—the fact that it has many grades, is of many nationalities, and speaks many tongues. Though highly skilled at the top, the mass of unskilled labour below is enormous. Much of it is not merely unskilled, but ignorant and half civilised. It has to be taught as

well as superintended. A sharp eye has to be kept on it all the time, and that is the function of the boss, who occurs in a great variety of forms and characters.

In American labour the boss is ubiquitous. He corresponds to the ganger of a squad of navvies; to the foreman in an engineering shop; to the head of a department in a city warehouse; to the shop-walker in Oxford Street or Holborn; to the manager of a factory; to the superintendent of a railway division; to the chief of a Government office,—in short, to any person exercising direct authority over others and acting as watchdog toward them. We have him in England under many different names, but he is never quite the same boss. With us he is a more or less lenient taskmaster, a casual visitor rather than a supervisor. In his higher forms he is a gentleman, or has to try to be, which is destructive of vigilance and efficiency. There is no boss so strict as an Irishman lording it over half-a-dozen other Irishmen. The Americans begin with him, and rise through a long gradation of authority to the boss with thousands of men at his call. Be the sphere large or small, the authority is absolute. A man may “turn up his job” at any moment, but while he is on it he must obey his boss as implicitly as a soldier in the ranks.

In going through any large establishment in the United States a close observer cannot fail to be struck by the order and discipline maintained.

Every man appears to be in his place and to be attending to his duty. Every machine is going at high speed, and the whole establishment runs smoothly. If one stops in the street to watch the progress of any large job—the building of a skyscraper, the laying of a street railway, or the excavation of a sewer—he will receive the same kind of impression. The work appears to be proceeding on a general plan. It is well laid out, and a vigilant eye seems to be over the whole of it. Close by every gang of labourers may be seen a foreman. Dodging about all over the place are keen-looking men, who may be engineers or superintendents. What one seldom or never sees is skulking or dawdling. There is no leaning on shovels or studying the passers-by or any other form of philosophic meditation permitted on an American job. Above all, there is no eleven-o'clock beer or four-o'clock beer. The boss has everywhere a strong objection to beer. On duty it is strictly tabooed, and even off duty it is discouraged.

British trades unionists often complain of the shop rules laid down by their employers, but they will not know what rules are till they have been to the land of freedom. Neither can they have any idea of the possibilities of supervision. The writer has seen iron mines on Lake Superior, employing six or seven hundred men each, where teetotalism was strictly enforced. The miners had all to live in villages belonging to the company in which not

■ single public-house was permitted. They had instead large temperance halls where amusements and soft drinks were provided for the whole population. They had free libraries and bath-rooms, recreation-grounds, and small gardens if they wanted them. To Scandinavians or Hungarians, fresh from their Old World dirt and discomfort, these model villages by the shores of Lake Superior should be a paradise. So far they have exercised a restraining charm on their rough inhabitants, but it remains to be seen how long the charm will last. Just now it has zealous and enthusiastic managers behind it whose personal example goes a long way. How it will fare under less zealous and vigilant disciplinarians is another matter.

Considering the chronic scarcity of labour and the pressing demand for it all over the West, it is a marvel how the severe discipline enforced can be maintained. In the railroad service it is particularly strong, and ever growing stronger; nevertheless it is quietly submitted to. For a locomotive-driver to be seen in a saloon, whether on or off duty, would mean a bad mark against him. To be seen a second time would produce a sharp warning from the boss of his division, and a third offence would be fatal. The same rule applies to firemen, and in a slighter degree to all the rest of the train crew—conductors, brakemen, &c. Even clerks and other employees unconnected with the operation of the road have to be very shy of saloons and all other institutions of the kind,

which if not expressly tabooed would not figure well in the confidential reports made periodically to the management on every employee. The careless maxim of some British masters, that their men can do what they like in their own time, is never heard in the United States.

American employers pay high wages and do not grudge them. On the contrary, next to making millions for themselves they love to be able to boast that American workmen are the best paid in the world. But high wages are not paid for nothing. The employer intends to get the best possible return for them, and the workmen admit that he is quite within his rights in so doing. Both parties understand each other on the point. The trades unions are of course interfering to upset this good understanding and to substitute a union boss for the master's boss. In the end they will very probably succeed as they have done here, but they are finding it an uphill fight. The personal authority of the American employer has always been greater than that of British employers, who as a class are more easy-going. It has also been more directly and methodically exercised. An American workman is expected to give his very best service in return for his liberal pay. He has to keep himself fit for his work and to take a personal interest in it. He is paid for good conduct as well as for honest labour, and the employer is as exacting on the one point as on the other.

There are found to be two ways of insuring an

adequate return for high pay: one is for the employer himself "to keep close to his men all the time"; the other is to employ vicarious methods of supervision. In very large establishments only the vicarious method is possible, and this is where the boss comes in. His special duty is "to keep close to them all the time," and if need be he also has his deputies. He likes to know not only what the men are doing but what they are saying and thinking. No pains or expense is spared to keep in touch with them. If things are not going well in a shop special measures are taken to discover the cause. The great Pinkerton has a detective service for this express purpose. One of his men may be hired as a fitter or a mechanic, and he may be in the shop for months without exciting the least suspicion of his character. Every night he will send in a report of all he has seen or heard during the day. When the employer has got all the information he wants Pinkerton's man will quietly disappear from the shop and very probably from the district also.

If the means used be rather invidious, they are generally effective. Every suspected workman, especially if he be a trades-union delegate, can thus be closely watched. If there be a strike brewing, the employer has early warning of it. If it be only a case of shirking or scamping, the proper remedy is soon applied. If the American employer had his way, shirking would soon be made impossible. He is down on it at the first



scent. His motto is, that for every wrong there is a remedy, and the sooner it can be applied the better. For example, if a freight train gets into the habit of losing time on the road and throwing out the whole of the train service, prompt action ensues. The division superintendent has his private car hitched on to the train and runs through with it. He finds out whether or not the delay is avoidable, and if avoidable, who is to blame for it. That is his method of bossing, and the men, independent as they may be in other respects, never object to it. They are not thin-skinned and touchy as British railway men might be under similar circumstances. They frankly recognise that the boss is only doing his duty in seeing that they do theirs.

Another explanation may be suggested of the patience with which American workmen submit to a system of close supervision which at first glance may seem foreign to their national character. They have faith in its being justly exercised, and they know that the good workman is taken note of as well as the bad one. Thanks to it, men are unexpectedly raised from the ranks, and having got their feet on the lower rungs of the ladder they will have a fair chance to rise to the top. Such things rarely happen under our happy-go-lucky *régime*, where if men are less closely looked after than in the States, they have all the more chance to be overlooked when promotions are going.

American employers find it pays to raise deserving men from the ranks. The best boss is

invariably a man who has worked himself, and knows all the peculiarities and foibles of his class. An Irishman shines in bossing Swedes, Slavs, Dutchmen, or other "furriners." Making him a boss is often a cheap way to prevent him becoming a trades-union leader, in which character he can be very troublesome indeed to his late employers. With philosophic impartiality the Irishman seems to be equally ready for either office, and he can fill both of them successfully. A large proportion of the bosses in the Pennsylvania coalfields are Irishmen, and a large proportion of the local leaders of the Miners' Union are of the same nationality. Cornishmen make good bosses for mining work. For skilled labour, as in engineering shops, Scotsmen answer better. They are to be found in all large establishments as foremen, head mechanics, and chief engineers. The native American comes in higher up as manager, superintendent, or director. He brings education and science to his work combined with business capacity. He has all the finer qualities of an ideal boss.

Whatever other gifts and advantages an American may have, he is not likely to reach the front rank unless he is also a first-class boss—a born ruler of men. It would be difficult to mention a railroad builder, an ironmaster, or an engineer at the head of his profession who does not include that among his strong points; often they owe to it their first step upward. Somehow they will get men to do things for them which they would not do for an ordinary

boss. They command their confidence, and never abuse it. Sometimes they consult them and get very useful suggestions for their pains. President Hill of the Great Northern Railway, when he was pushing his road across to the Pacific, owed a good deal to magnetic influence discreetly exercised on his men. He knew most of them personally, and seized every chance of a few minutes' chat with them. They were encouraged to express their opinions about the road and its affairs, which were not always flattering. The engine-drivers were valuable scouts, and Mr Hill would often stroll into the engine-stables and have a talk with any of them who chanced to be around. It was his way of "keeping close to the men all the time." Now his assistants do that for him, and find it still worth doing.

The boss is so interesting and important a figure in American industrial life that he would be seriously missed were he to disappear from it. At the same time, such an event is not at all impossible. Even now he may be in a state of transition, for the conditions which produced him are undergoing rapid change. The uneducated, half-civilised foreign labourer over whom he lorded it so grandly is finding other rulers. He is being drawn into the sphere of influence of another boss, the trades-union leader. Already a stubborn fight is being waged over him by the employers on the one hand and the trade unions on the other. There can be little doubt who will

secure him in the end, and what use will be made of him. He is marked out as the spoil of the union leaders, and he will be a prize for them not industrially only but politically as well.

American employers are to-day fighting for independence—or, as they call it, “for the management of their own business.” It is the same fight that British employers had to go through with the unions a few years ago, and from which they emerged if not complete victors with at least a moderate degree of success. They are now masters in their own house, which many American employers are not. In the United States it is to be a harder battle than it was here, because on a larger scale and with a more doubtful prospect. The stake is also much greater in the United States than in our own case. It involves political as well as industrial mastery. The fact of their having their workmen so well in hand has been undoubtedly of great value to American employers, not only in the workshops but in other connections as well. It made them good voters as well as good workmen. But if they are going to break away in one capacity they may do it also in the other. There may be an electoral revolt combined with a labour revolt. In that case the reign of the boss would be over. With “walking delegates” coming and going all the time, and union rules being drawn tighter every year, “bossing” as hitherto practised would soon become impossible.

The change when it arrives will be bad for the masters, and in many ways for the men themselves. It will destroy the wonderful discipline and method which are the glory of American industry and the secret of its exceptional results. Neither the boss nor "Pinkerton's man" will have an easy life in the teeth of an organised labour party sending their own representatives to Congress and having laws made for themselves instead of helping to make laws to suit their employers.

## CHAPTER IX.

PERSONAL FACTORS (*continued*).

## III. THE ORGANISER.

WE come now to one of the unquestionably strong points in American industry—its organisation. It admits of discussion whether the American workman under equal conditions is more efficient than the British workman, but there can be little doubt that the United States is exceptionally well provided with organisers of every kind. They abound in all the staple industries, as well as in every important branch of commerce. How they come to be so plentiful is a question which so far has received comparatively little study. It is in the stage which admits only of tentative suggestions and not of a definitive solution.

There are three special schools for teaching organisation—war, mining, and railroading. In each and all of these schools the present generation of Americans have had a severe training. A very large remnant of both the Northern and Southern armies of the Civil War still survives. The generals and colonels, whom it trained by

hundreds, as soon as the war was over hastened back to civil life. They became distinguished railroaders, financiers, manufacturers, and merchants. The rough virtues they acquired in camp served them well in business, and this element, though on the decline, is still strong enough to give a decided tone to commercial life. Military spirit continues to show itself in very odd ways.

Immediately after the Civil War a new school of discipline and of organising power was thrown open to Americans in the mining camps of the Far West. There was much more got out of the Comstock lode than mere gold or silver. The "old timers" who went through that experience, whether they became millionaires, like Flood and Mackay, or remained poor men, derived from it a splendid education. Subsequently they spread all over the west, and everywhere they proved themselves men of ready resource and strong character. Many of them became managers of large mines and presidents of mining companies. They are to be met with to-day in every important mining district, and most of them can be recognised at once by their quiet authoritative way of doing things. They can keep their finger on an army of ignorant Hungarian, Swedish, and Italian workmen as if they were children. It is a sort of magnetic power they appear to have acquired through sheer force of governing. However turbulent and unruly the men might be in weaker hands, they recognise strength and dominant will when they feel them.



They also know when a firm hand is on the reins, making it useless to kick or grumble.

Managers and mining captains of that stamp are all born organisers. Likewise they are as a rule competent experts in their special line. As such they know their business from beginning to end. To them it is a huge machine, every wheel of which they understand and every movement they can anticipate. The writer has met in the Far West several notable examples of this class of manager—the organising expert. He has a vivid recollection of one in particular—a sinewy silent Cornishman whom he encountered one day on the Mesaba Range. He had two mines in his charge, the second being twenty miles away on a different iron-ore formation. Both were turning out six or eight hundred tons of ore per day, and employing about six hundred men. Chance threw us in the way of the silent but keen-sighted manager as he was going his daily round of the shaft-heads and the various workshops.

He drove up in a strong but light buggy without any groom or attendant. First he had a look at the ore-waggons coming up the shaft to see what kind of ore was being taken out. From them he passed on to the “breakers” at the pit-head, where the ore is broken, sized, and classified. Thence to the engine-house, the machine-shop, the air-compressor, and finally to the offices. In each place he walked quietly round, asking a question here, making a suggestion here; now examining a

new rock-drill, now watching some experiment or other. Having been years underground himself, and through every department of the work above-ground, he knew at a glance when things were right. From end to end he had planned the whole establishment, and in more senses than one was its master. His rule was firm but just, and even liberal. It extended not only over the mine but over the adjoining town in which the men lived. Every cottage belonged to the company; so did the schools, the town hall, and the free library. All were under the manager's rule, tempered in some cases with the help of a committee. Above ground and below the whole place was a model of organisation. In the long series of operations one succeeded another with perfect regularity, until the ore was shot into the immense ore cars and started off for its shipping place on Lake Superior, where it dropped out of the cars into ore-bins, and from the bins was run into lake steamers.

What this kind of mine-manager may do is to be seen not only in the Western States but in many other parts of the world, including our own colonies. It was conspicuously exemplified on the Rand goldfield at a critical period of its history. At the opening up of the Rand many costly mistakes had been made by the self-styled mining engineers, who always turn up in crowds on such occasions and exploit them much to their own advantage and the corresponding loss of their

employers. The original movement had in consequence collapsed, and it remained in discredit until Mr Rhodes had the happy thought of calling in some American experts. It is needless to recall the wonderful transformation they effected. Amateur muddlings were replaced by scientific methods. Cheap inefficient plant was cleared out to make room for machinery that would work. Order and system were brought out of chaos. Profits began to appear where hitherto there had been monthly deficits. The Rand was, in a word, reorganised, or rather it was organised for the first time.

In contrast—very painful contrast—to that, witness the unbroken muddling and scandal which have characterised the whole history of the West Australian gold mines. Far richer as a rule than the Rand, and enjoying several important advantages over it,—proximity to the coast and cheaper transportation among others,—not one in ten of them has been a durable success. Some made a great flash in the pan for a time by sacrificing development to immediate dividends. Others have been failures from their birth. Every conceivable kind of vicious mining has been practised on these unfortunate properties. Outrageous sums have been wasted on unsuitable machinery. The chairman of one concern, which had in its day been a coming bonanza, expressed a doubt to the shareholders if it would not have been better to sweep away all their original plant and begin afresh.

But he frankly admitted that he had not had the courage. Neither he as chairman nor the managers nor "the professional gentlemen they consulted" were bold enough "to condemn a forest of machinery which cost the company £500,000, and say do away with it."

Another and more cogent reason for not doing away with it was that they had no longer enough ore in the mine to supply a large plant even if the plant had been efficient. The one and only branch of mining work that British mining directors ever seem capable of is ordering the most expensive machinery. When they have done that—and they do it at the earliest possible moment—their directing skill is exhausted. They can then only sit still till the inevitable smash occurs, when the equally inevitable appeal is made to one or other of the "eminent consulting engineers" who act as emergency men. It is the latter who get most of the prizes of British mining. If the enormous fees and commissions heaped up on them were spent at the outset on securing capable managers and properly organising mines, there would be more chance to get some return for the money.

As in war so in mining and in railroading, "muddling through" is the accepted creed of British industry to-day. Resignedly submitting to the maxim that organisers, like generals, are born, not made, we seem to have given up hope of finding them, unless Providence should furnish us with one or two more Kitcheners. But organisers surely

cannot be an American monopoly. All industrial States, including Great Britain, have produced a few, and happy the nation which at a crisis in its history finds one ready to hand. If we try to imagine how long the South African war might have gone on and how many millions more it might have cost had there been no Lord Kitchener available, we may by analogy form an idea of the value of a genius for organising in the industrial world. It is more valuable even than in war, because great wars occur only at long intervals while the industrial struggle goes on all the time.

Lord Kitcheners are as rare in industrial as in military operations. At the present time they are quite as badly needed. Perhaps the finest specimen of them we have ever had in civil life was Thomas Brassey, the railway contractor. A great opportunity came to him—almost indeed forced itself upon him—and without any self-consciousness he rose to it through sheer force of character. The opportunity and the man were made for each other, and together they achieved results inconceivable to ordinary people. Such conjunctions are rare, but when they do occur they further the progress of the world at tenfold speed. In a single lifetime they accomplish the work of a century. It would have been hardly possible for England to produce a second Thomas Brassey very soon, because the requisite opportunities were quickly exhausted. Our small geographical area offered little scope for heroic engineering compared with

that of the United States. The Americans had in railway building the same class of opportunities as our own, but on an immensely larger scale. While one Thomas Brassey sufficed for us, they found opportunities for hundreds.

The present generation of Americans contains a larger number of great organisers than were ever simultaneously at work before. They have distinguished themselves as railroad builders, President Hill of the Great Northern, for example; as iron and steel makers, witness Mr Carnegie; as manufacturers, like Mr Havemeyer of the Sugar Trust; as traders, like Mr Rockefeller of the Standard Oil Company; and as rulers, like President Roosevelt. In the methods of these various masters there may be room for criticism, but in one thing they agree—they are all of the Napoleonic breed. As in Thomas Brassey's case, there is among them a combination of exceptional powers—unusual breadth of mind, strong intellect, keen insight, and rare patience. The imagination which sees far ahead is united in them to keen grasp of the smallest details. The two opposite qualities of brilliant conception and careful execution are equally strong in them.

They have, in short, the gifts both of the ideal and the practical organiser. Some eminent men have possessed one or other of these, but their union in the same man is exceptional. Mr Rhodes was an ideal organiser in so far as he could form magnificent plans, but he had very little gift for

working them out. All the details were left to his lieutenants. Examples of phenomenal power of detail minus the gift of planning are familiar in all countries. The organiser who can both plan and execute is the *rara avis*. Mr Brassey's friend, Sir Edward Blount, gives in his lately published Memoirs many instances of the "all-roundness" of the famous contractor. Natural genius made him a financier, an engineer, a negotiator, and a ruler of men. What others have to acquire laboriously by years of training came to him by intuition. He saw at a glance his way through difficulties which would have cost others no end of study and consultation. The time he saved by his power of prompt and rapid decision meant millions of money both to himself and his principals. The amount of work he compressed into a comparatively short life—he was only sixty-five at his death—might in less powerful hands have taken years longer to accomplish.

In recalling to British readers one of their own captains of industry, our object is to make it clearer to them what a valuable possession the Americans of to-day have in their Thomas Brasseys. Organisers who can employ eighty thousand men at a time as he did, and superintend huge undertakings thousand of miles apart, seem to make the whole world move faster. What Thomas Brassey did in his day for Europe his American successors are now doing for their own country—a world in itself. It is wonderful how



his grand qualities, and even his peculiarities,—the peculiarities of genius,—reappear in them. It has been said of him that he was “swift and clever in calculation,” and so are most of them. He had studied so closely the many kinds of labour he employed, embracing all the chief nationalities of Europe, that he knew the weak and the strong points of each. He was so cool and self-possessed that his nerve never once failed him. Even when caught in the Overend Gurney panic of 1866 he had no difficulty in obtaining all the financial assistance he needed, so strong was the personal confidence he commanded.

Finally, Mr Brassey was a tremendous worker—another of the manly gifts which seem to have migrated from England to America since his time. In whatever other respect the great captains of industry may differ, they are all hard workers. Work becomes a passion with them, and they stick to it day and night either from sheer love of it or absolute necessity. Their grand organisation, the offspring of their brain, generally swallows them up in the end. It becomes so fascinating, and demands from them such incessant attention, that they get little rest unless they tear themselves away from it altogether. Mr Carnegie gave his whole life to his monumental works at Pittsburg until he was sixty years of age and then retired altogether, feeling perhaps that there was no middle course. His successor, Mr Schwab, though in the prime of life, has had his first warning as to the

limits of human strength. Scores of American organisers have gone through the same martyrdom before. The railroad presidents, financiers, and business men of all kinds who have killed themselves by overwork would fill a very long list.

A supreme organiser must necessarily be a hard worker. It is one of the essential conditions of his *rôle*. The organisation has not only to be planned, but it has to be established—to be built up day by day and year by year, to be watched and tended like a child to see that nothing goes wrong with it, to be modified as occasion requires, and readapted to every change of condition. Only a very hard and enthusiastic worker need put his hand to a plough of that sort, for there is no turning back without absolute ruin. One of the reasons for our present dearth of great organisers in England may be that the passion for hard work which distinguished our fathers and grandfathers has to a large extent died out. Our heroic age of industrial enterprise seems to be past, and we have settled down to a *régime* of joint-stock old fogeyism.

Whatever occult merits the joint-stock system may have, rapidity of action can hardly be claimed as one of them. Where all initiative is concentrated in a board of directors, not one of whom may have any technical knowledge, movements are sure to be slow. In the United States that obvious drawback is guarded against by having a strong executive distinct from the directorate, and

in all technical matters independent of it. The directors are, as a rule, advisory only, and the executive power has a free hand. There is consequently scope for organisation, and organisers have all the opportunities they need. They are eagerly looked for, and when found they receive every kind of encouragement, from hundred-thousand-dollar salaries to special audiences of the German Emperor.

A Carnegie boom or a Schwab boom may sound to us rather theatrical, but even in their theatrical moments the Americans never forget business. They know well that every American workman, every clerk and office-boy, feels a thrill on reading of the rise of a new star on the industrial or even on the speculative horizon. It has a stimulating effect on them, and helps to keep them out of the clutches of the miserable "ca'-canny" creed, which, by the way, is not wholly confined to British trade-unionists. There are "ca'-canny" directors and managers among us as well as "ca'-canny" workmen. In comparing the very different rates of speed at which most kinds of engineering work are done in the United States and in Great Britain, it will be found that all the fault is not with the workmen. On our railways, for instance, directors, managers, engineers, and officials of every grade move much more slowly than they would have to do on the other side of the Atlantic.

Any one who has an opportunity to see how railway extension is carried out here must be

amused at the leisurely character of the proceeding. A spur line of four or five miles, which an American engineer would put through in as many weeks, will easily spread over a season or two on an English railway. A twenty-mile stretch will be years old before it has run the gauntlet of directors, select committees, engineers, draughtsmen, and contractors. In these days of international yacht-races and polo-matches we should like to hear of an American railroad company challenging an English company to a friendly competition in railway building—say fifty miles, to be as near as possible alike in grades, contour, and nature of ground. This would be a most instructive trial of organising skill on both sides. The British and the American methods of doing such work would be clearly exemplified in it. We fear that the American competitor would come out well ahead, not only as regards speed but in his general handling of the job. He would prove himself in every way a superior organiser and a more resourceful engineer.

We have been reluctantly driven to this conclusion by observation of the English and American systems. For an English example we take a piece of work now actually progressing—if we may correctly use such a term—on a western section of one of our main lines. It is a very simple straightforward job, but the country is too lonely for the engineering staff. They have selected a lively seaside town about twenty miles

away for their headquarters. It is on a branch line of their own railway, with very few trains, and they have to change trains both going and coming. After a not too early breakfast they catch a slow train, put in half an hour at the junction station, and reach the scene of their labours about an hour more or less before mid-day. This kid-glove sort of railway building would be an excellent joke out West. There the engineering staff would in a similar case have a private car allotted to them, and they would live beside their work till it was finished. The rougher the country the greater a hurry they would be in to get away from it. But anyhow they would put in a full day's work every day.

Even ■ Lord Kitchener could not accomplish great feats of organisation without capable and loyal subordinates to carry out his instructions. The American organiser always has such subordinates, because he insists on having them. He looks about for them till he finds them, and when he gets the right men he binds them to him by putting them in the way of advancement. If there be a born organiser among them he too gets his chance sooner or later. Wherever there are the makings of a man, of a great mechanic or an able administrator, of an inventor or ■ financier, they are sure to rise to the surface among these seventy odd million Americans. In other countries they might die unhonoured and unsung,—in fact undiscovered,—but there is

little danger of such a fate in the United States. The passion for doing big things is so universal in all branches of American activity that every eye is strained in that direction, and every success is hailed with national acclamation.

It makes little difference what the big thing may be—whether a political, a commercial, or a dramatic success. On that point the Americans are very catholic minded. They can go into ecstasies one day over the latest arrived billionaire, the next over a base-ball team, and the next over an Admiral Dewey or a “cowboy President.” But he must always be a man, and the most popular sort of man he can be is a great organiser. There can be nothing big without special organisation, and though the craze for bigness may be in itself rather laughable, it is also the possible parent of a great virtue. European critics of the American people have perhaps overlooked, or at least underrated, this fact. If they were less active, less ambitious, and less given to rustling, they might better suit our phlegmatic British temperament; but how much would they lose of their practical genius, their gift of generally having the right man for the place, and the proper tool for their work?

## CHAPTER X.

PERSONAL FACTORS (*continued*).

## IV. THE FINANCIER.

IN New York the financier has a higher status and a more definite function than in London. With us he is a hybrid hovering between the regular banker and the speculator. The regular banker professes to eschew finance and to confine himself to "legitimate commercial business." There is often more theory than actual fact in the profession, but it has to be taken for what it is worth. Anyhow, the amount of floating capital available for financial operations in London is small compared with the total amount. In New York it is large, and the professional financier has freer use of it than anywhere else except in Berlin. The total supply of floating capital is more accessible to him, for the reason that he is generally a banker as well as a financier. He has not to deal, like the London financier, with big joint-stock banks, each holding forty or fifty millions sterling of deposits and keeping a firm grip of them. In place of these he has a multitude of small banks under his own control,



and whose resources he can use to the last dollar, as has in fact happened frequently in the history of New York banks.

This is one of the unacknowledged reasons for the fact that the Americans have never taken kindly to large joint-stock banks on the British model. They see in them only large concentrations of capital under the care of directors who might be too independent and have too strong a sense of responsibility to their depositors to suit the financiers. The latter would rather have twenty weak banks than a single strong one, and for choice they would rather have the running of the banks themselves. Some of the larger fry have succeeded in establishing banks for their own convenience. They or their friends found the trifling amount of capital required to start them. They named the board, and as soon as the public furnished the necessary deposits they did the borrowing. The late Mr C. P. Huntington was a notorious bank exploiter of this sort. He had at one time over a dozen tame banks whose principal customer he was, and also principal shareholder.

But that was a comparatively late development. The early financiers of the Jay Gould school were smarter men still, for they did their boldest financing without any capital at all. Mr Gould may be said to have discovered the golden secret of buying things with other people's money, which is the keystone of speculative finance. Before he was eighteen years old he had "captured"

a tannery at his own valuation of sixty thousand dollars, and made his first attempt at a corner : it was in hides. His first railroad deal took place in the panic year 1857, and was thus described by himself to a committee of the United States Senate :—

About that time the panic of 1857 came on, and everything was very much disturbed. Railroad values went down very low, and the first mortgage bonds of the Rutland and Washington Railroad were selling at 10 cents on the dollar. I bought all the bonds at that price, *borrowing the money to pay for them*. I took the entire charge of this road, and learned the business as I may say. I was president, secretary, treasurer, and superintendent,—had sole control ; and I formed what was known as the Saratoga Consolidation. The first road was sixty-two miles long. I had gradually drawn the road up, and I kept at work until finally we made the present Rensselaer and Saratoga road. Meantime the bonds became good and my stock also.

In the above deal Mr Gould was a typical American financier, and if he had never done anything more questionable his memory might be in comparatively good odour to-day. He imitated, in fact, on a small scale the grand *coup* which Commodore Vanderbilt was then making on a large scale in his New York Central consolidation. He helped to set the fashion of a form of finance which now rules the United States. Discredited as it was at one time by the scandals of the Erie "Steal" and the Gold Room conspiracy, it has never gone completely out, and never will. It is at the bottom of all the railroad reorganisations, the

"mergers," the steel trusts, and the shipping combines which make our own times so exciting. An opportunity to pick something out of the gutter for 10 cents on the dollar, to pay for it with borrowed money, to set it on its feet again, to boom it vigorously, and in the end to resell it to its original owners for as many dollars as it cost cents—appeals irresistibly to the American imagination.

Mr Jay Gould's feat of nearly half a century ago with the Rensselaer and Saratoga road has been often repeated since by his successors in Wall Street. Most of them, and especially the big ones, would no doubt repudiate the imitation, but it is growing too evident to be disputed. In the past few years there have been dozens of Rensselaer and Saratoga operations. We express no opinion on them at present, but simply wish to point out to the reader their hereditary character. We would also impress on him how typical they are of a certain class of American finance which has of late grown to gigantic proportions. What it may lead to in the future can be best learned from what it has done in the past. This kind of finance—based on the rapid conversion of 10 cents into 10 dollars—has always had a fascination for Americans, but never so much as to-day. In the Vanderbilt and Gould period it was confined chiefly to railroads. Outside of these the Western Union Telegraph Company was the only huge corporation formed. But now it has spread over the entire field of American

industry, and is reaching out into every branch of trade, retail as well as wholesale.

It is an odd circumstance bearing on this question that Jay Gould's memory has undergone a considerable whitewashing since his death. His wrecking schemes are still denounced, but his reorganisations are spoken of with respect. In his heart every American wishes he could find a Rutland and Washington derelict to take hold of and run up in a few months from the 10-cents level to par. It would of course be an exaggeration to say that the financial system of the United States is founded on such a principle or entirely regulated by it. Undoubtedly, however, it is a powerful sentiment, not in Wall Street alone, but in every department of American business. It is a reflex, very much magnified and intensified, of the sentiment which Hooleyism produced in its brief day on our own commercial circles. When Hooleyism came in, a business was no longer valued in the old-fashioned way at so many years' purchase of its net profits averaged over a series of years; it was put at once on the level of a freehold, and capitalised at the maximum sum which the aggregate folly of the country might be expected to rise to when the bait was thrown to it.

A recollection of the disasters which attended the Hooley craze may help English readers to picture what it may be capable of in the vastly larger arena open to it in the United States.

There the industrial finance of the day has become a race for giddy capitalisation, and the giddiest capitaliser is financial king. The boldest and subtlest intellects of the age, Jew and Gentile alike, are engaged in this Laputian competition. Jay Goulds are flocking into Wall Street from north, south, and west, all intent on the noble art of coining dollars out of 10-cent pieces, or, to put it more politely, converting Rutland and Washington roads into Rensselaer and Saratogas. The feat may be performed quite honestly, and has in fact often been. Derelicts may be found on land as well as at sea, which will yield a fortune to their salvors. But derelict-hunters forget that these are exceptional cases—strokes of luck, as it were. Derelict-hunting pursued as a regular business is quite another thing. When it is carried into every branch of industry and trade, as in the States, it may become a dangerous craze.

The American financier has always had superabundant courage, but till lately his resources were limited; now they are for the time being apparently boundless. He has facilities for carrying through gigantic schemes which none of his international rivals enjoy. As above explained, he has free use of all the available capital at home, and in addition he has his choice of eager allies in Europe. There were never so many secret international combinations in high finance as exist at this moment—all for the benefit of

New York. A man bold enough to exploit them for all they are worth may make himself practically omnipotent—so long as omnipotence pays and the international combinations don't get jealous of him.

When one looks back on the now almost mythical exploits of the Gould and Fiske gang he feels amazed at the small command of hard cash with which they carried through their prodigal campaigns. With their strong boxes full of scrip—more or less genuine—they were often on the verge of bankruptcy. One valuable secret they had not discovered—namely, how to combine banking with stock-jobbing. That secret remained for the present generation of American financiers to exploit, and in time to come it will be their chief distinction. It will be recorded as their motto, "Let us run the banks and we will make things hum." At present they might include the railroads with the banks, for they have complete control of both. It would be hard to say whether the banks or the railroad treasuries are more heavily drawn on for Morganeering sinews of war. The railroads may not have been able to furnish much hard cash, but their improved credit has been a valuable factor to exploit. Pretexts are easy to find for a new issue of stock or bonds, or for a conversion which leaves a few million dollars at the bottom of the crucible.

For financiering purposes a railroad is in some respects even more useful than a bank—and safer.

There is less fear of its being overdone and of risky operations coming home too soon to roost. A dangerous overdraft needs constant attention, and is a continual cause of anxiety, whereas a railroad deal when once put through is practically done with. Depositors may come back for their deposits at inconvenient times, but subscribers for new stock or bonds when they get them have either to keep them or sell them in the market. They cannot worry the directors who originally supplied them. One of the many peculiar characteristics of the Morganeering campaign is the lavish use that has been made of railroad credit—in other words, the credit of railroad corporations.

The famous Northern Pacific corner of May 1901 involved financiering of unprecedented magnitude. In that war of Wall Street Titans, the "Harriman group," as they are called, armed themselves with about 411,000 preference and 370,000 common shares. Mr Harriman then controlled the Union Pacific, and through it the Oregon Short Line. Both these companies had to assist in carrying through the Northern Pacific "deal," though they had no real interest in it themselves. The Oregon Short Line had to act as dummy purchaser of the Northern Pacific stock, and it made a dummy payment in "certificates of indebtedness," otherwise "IOU's," to the amount of sixty-one million dollars. The "certificates of indebtedness" were turned over to the Union Pacific Company to be financed, and Mr Harri-



man did that part of the work with his usual skill.

As if to show how trifling a job he considered it, he combined with it a second brilliant coup. A huge block of Southern Pacific stock was in the market, and he captured it. This and a supplementary purchase made afterwards gave him control of ninety million dollars, or nearly one-half of the existing Southern Pacific stock. Between the two he had a handful of the nominal value of 130 million dollars. Not many financiers even in Wall Street could have faced such an ordeal calmly, and perhaps it cost Mr Harriman, imperturbable as he is said to be, a few sleepless nights. Anyhow, it took him more than a year to get all the "certificates of indebtedness" and other forms of floating debt funded. In doing it he had to tax the credit of both the Union Pacific and the Oregon Short Line to the utmost. The Union Pacific had to assume the lion's share, and its contribution was an issue of 100 million dollars of four per cent bonds convertible into stock. The Oregon Short Line offered to the public 31 million dollars of four per cent bonds at 90 redeemable at 102½, but how they went there is no evidence. Nor is it likely that the last has been heard of these financiering issues. A peculiarity of such creations is that their parents can never leave them alone.

American railroad directors have great latitude in Wall Street, and also great advantages. One

of the advantages is being able to pass on a heavy "deal," either to their own or to a friendly company. It is still painfully remembered in England how the old Reading Company was loaded up with coal-lands until, like Mark Twain's jumping frog, it could not move. Now all the hard-coal roads in Pennsylvania are in a similar plight. It is very popular financiering at present while a coal boom is on, but how it may fare when coal is at the other extreme can be easily learned from past experience. This is not the first time that the anthracite roads have gone in for "community of interest," though, to be quite just, the game has never before been so boldly or skilfully played.

In the present campaign "community of interest" has been extended to the soft-coal region, which hitherto had proved quite intractable. Some of the railroads in that region have now, thanks to energetic Morganeering, become large coal-owners and operators. The most brilliant scheme in this connection was exploited on the Norfolk and Western road, which for many years was under British control, but has now been absorbed into the Pennsylvania "sphere of influence." The Norfolk and Western road opened up the celebrated Pocahontas coalfield of Western Virginia, and in order to secure traffic for it in its early days local companies were established along the route to work the coal and other minerals. These local companies, as a rule, proved fairly successful,

and while acting as feeders to the Norfolk and Western they made reasonable returns to their shareholders. They were moderately capitalised, according to the old-fashioned ideas of ten or fifteen years ago, but when the Morganeering fever sprang up quite different standards of value arose. Most of these properties were gobbled up by financiering syndicates and turned over three or four times in course of a few months, each time at a flamboyant profit.

There would have been no fault to find with that if each succeeding set of boomers had taken their risk in the open market. The earlier ones did, and if all the others had followed their example the snowball might not have grown to its now dangerous size. In all the syndicates there were railroad men, and in each succeeding syndicate the proportion of railroad men increased until they were nearly all directors of local roads. What more simple and natural than that the roads should become the final purchasers? They had to pay giddy prices of course, but that is an inseparable incident of privileged financiering. Coal-lands which they might have bought in 1899 for three or four millions cost them in 1901 twenty million dollars!

And money had to be borrowed to pay for them, which gave a beautiful opening for more high finance! Of the new railroad issues made in the past four years, a majority were not for the legitimate operations of the roads themselves, but for

outside operations like those above indicated. Many examples of them might be individually described, but two or three will suffice. The youngest issue of the Norfolk and Western, its twenty million dollars of Pocahontas Fours, represents the price it had to pay for the Flat Top Coal Company's seven millions of already well-watered stock, and certain other coal properties in the Pocahontas coalfield. If the other properties be valued at half the price of the Flat Top, an estimate liberal to excess, that would start the snowball at ten million dollars. Its increase in a few months to twenty millions was certainly making the most of the boom. But that the Norfolk and Western, which had created the coal industry of West Virginia, should thus be "hoist with its own petard," is certainly rather rough on its shareholders. Under the British *régime* the railroad and the coalfields had been treated almost as one property. The "financiering" syndicates for their own purposes separated them, and after watering the coal-lands to the extent of ten or twelve million dollars, they made the railroad buy them back, water and all!

The latest, though not, we fear, the last, of the railroad "deals," was that which captured the Louisville and Nashville road and, without the slightest reference to its stockholders, turned it over to another road which had no particular wish for it. There was a touch of redeeming humour in this operation. Mr John W. Gates engineered the original corner. Mr Morgan, according to some

accounts, insisted on taking it over, and according to others had to take it over in order to prevent a second May panic. The comedy may be best described in successive tableaux. First, a sudden jump in Louisville stock from 105 to 150, with the usual attendant rumours about somebody "buying for control." Second tableau, Mr Gates on his knees to Mr Morgan, or Mr Morgan on his knees to Mr Gates, it has never been positively settled which. Anyhow, they had the stock and did not know what to do with it. Third tableau, Messrs Morgan and Gates casting about for a purchaser of their white elephant. Their first idea was a stroke of genius. They thought of selling the stock to the Louisville and Nashville Company itself and taking its bonds in payment. That fell through, and they tried next a combination of Southern roads to take over the Louisville bodily on a dividend guarantee; but as this would have involved "squaring" three or four state legislatures, it had also to be given up.

Finally Mr Morgan pitched on the Atlantic Coast Line Railroad Company of Virginia as a proper party to "carry the corpse." Without consulting its stockholders he dumped on this obliging corporation a block of over three hundred thousand Louisville and Nashville shares. It had cost him \$43,860,000, and he swopped it for cash and securities of the Atlantic Coast Line Railroad Company having a par value of \$54,000,000. To run up a stock from 105 to 150 in course of a few weeks, and

without a vestige of excuse, would seem rather skittish outside of Wall Street. To buy over 300,000 shares on such a wild advance would anywhere else be considered a trifle crazy. But Mr Morgan knew his public. He flattered himself that the craziest thing he could do would be capped by his friends if he gave them the chance. Among the many railroads he had under his glittering eye there was sure to be one that would regard Louisville stock with the finger-marks of the master on it as cheap at 150. Of course money had to be found for the Atlantic Coast Line Railroad Company of Virginia to finance its purchase, and Mr Morgan was able to see to that also. Even in played-out Europe financiers could in a twinkling double the value of any stock if they knew, as Mr Morgan did in this case, that one or other of their "controlled" companies would be ready to take their stale bargains off their hands.

An English parallel to such a proceeding is quite inconceivable, but for the sake of illustration let us suppose that a sudden jump of 50 per cent took place, say, in Brighton stock; that a daring operator was known to have bitten off much more of it than he could chew; that a British Pierpont Morgan came forward and relieved him of it in order to avert a collapse, and that ultimately the South-Eastern Board showed its appreciation of the salvor's courage by giving him a few millions' profit on his purchase. What would be thought of it all? Would the episode as a whole be greatly

admired? Would the new South-Eastern capital be eagerly subscribed? Would the South-Eastern directors be likely to continue much longer in office?

There are in Capel Court many experienced practitioners in the art of "making a market." They rather pride themselves on their smartness, which their fellow-members generally call by other names. But they are infants beside the American Napoleons of their art. The latter can pull off millions of dollars while they are scalping a few thousands. The bold design never entered into their minds to capture an old well-established stock, and after playing with it for a few months in cat-and-mouse fashion to dump it on a "controlled" company at a huge profit. The Gates deal in Louisville and Nashville goes further than has ever been done before, even in Wall Street. Previous instances might be found in Louisville history of securities of adjoining roads having been bought by "friendly syndicates," and in default of private purchasers sufficiently profitable, having been traded off on the company. But never before has another company had to come to the relief of a Louisville and Nashville corner.

Gigantic stock-jobbing in Wall Street by railroad directors at the expense and risk of the railroads has given rise to a new financial device—the Securities Company—to which we shall have to devote a separate chapter.



## CHAPTER XI.

## CORPORATE FACTORS.

## I. THE BANKS.

IN the banking system of the United States we reach the crucial part of the industrial problem. The banks are the pivot on which not only the industrial but the whole commercial and financial organisation turns. They have furnished the wherewithal for carrying out the huge operations of the past five or six years,—not of course from their own resources, but by the use of their credit. In the event of reaction they would have to bear the chief brunt. So important is their position at a juncture like the present that it might almost be said, while they remain secure everything else will be fairly safe. Not only are they the ultimate financiers of all the big deals and combinations, but they are the guardians and supervisors. The American public look to them, and with reason, to check obviously bad business and to take early precautions against danger. They may be credited with having so far exercised their critical functions with a certain degree

of care and prudence. But the temptation to imprudence must often have been strong on them, and it cannot be hoped that they have always and at all times sternly resisted it.

During a long-continued boom it would be impossible to entirely avoid lax banking. Even dishonest banking may creep in to some extent. An expansion so tremendous as the United States banks have undergone since 1897 could not by any chance be sound throughout. A certain degree of rottenness is to be regarded as inevitable, and a stage has now been reached at which a sharp lookout for rotten spots may be advisable. But the banking system of the United States is so extensive that even a superficial survey of it is no light task. A specially prepared return issued under the authority of Congress gives the total number of banks of all kinds doing business on the 29th June 1901 as 12,972. Their aggregate capital was 1138 million dollars, the surplus 693½ millions, and undivided profits nearly 271 millions. Their own resources thus amounted to 2102 million dollars. They held public money in the shape of deposits aggregating 8619 million dollars, and had lent out 6491 millions. Of the public money 2128 million dollars, and of their own 2102 millions—together 4230 millions—were presumably invested, but no particulars of the investments are furnished.

The term "bank" has always had an elastic

meaning among the Americans. In this official return it embraces not only national and state banks, but savings banks, private banks, loan and trust companies. All "dealers in credit," to use a phrase which has become very fashionable in banking circles, are admissible. The 12,972 are made up as under:—

National banks . . . . .	4165
State " . . . . .	5204
Savings " . . . . .	1007
Private " . . . . .	2193
Loan and trust companies . . . . .	403
	<u>12,972</u>

The following are their respective capitals, loans, and deposits. In order to assist the reader in gauging them, a few corresponding statistics of British banks are appended as a standard of comparison:—

	Capital.	Reserves.
National banks . . . . .	\$645,719,000	\$274,194,000
State " . . . . .	271,085,000	105,627,000
Savings " . . . . .	18,681,000	185,859,000
Private " . . . . .	56,964,000	7,079,000
Trust and loan companies	145,592,000	120,705,000
	<u>\$1,138,041,000</u>	<u>\$693,464,000</u>
	Deposits.	Loans.
National banks . . . . .	\$3,035,662,000	\$2,981,054,000
State " . . . . .	1,637,565,000	1,214,107,000
Savings " . . . . .	2,518,599,000	1,219,740,000
Private " . . . . .	149,256,000	128,389,000
Trust and loan companies	1,278,203,000	948,341,000
	<u>\$8,619,285,000</u>	<u>\$6,491,631,000</u>

The banks of the United Kingdom, private and joint-stock, have, according to the latest returns collected by the 'Bankers' Magazine,' an aggregate capital and reserve of 131 millions sterling (£131,346,000). Their deposits, current account balances, and note issues amounted at the same date to 888 millions sterling (£888,204,000). Large as they are, these totals may seem small compared with the American 1831 million dollars (366 millions sterling) of capital and reserve, and 8619 million dollars (1724 millions sterling) of deposits. The British figures, however, apply only to banks proper, excluding savings banks and trust and loan companies. The latter should therefore be eliminated from the American tables in order to make the comparison equal. This would leave only the national, state, and private banks with an aggregate capital and reserves of 1350 million dollars (270 millions sterling), deposits 4827 million dollars (965 millions sterling), and loans 2323 million dollars (481 millions sterling).

Now we have a much nearer approximation to the British totals. The capital and reserves are respectively 131 millions sterling and 1350 million dollars, or 270 millions sterling. The deposits are 888 millions sterling against 4827 million dollars, or 965 millions sterling. The loans and discounts are 545 millions sterling against 2323 million dollars, or 481 millions sterling. The most important item of the whole is of course the deposits, and in respect of these

the two countries are nearly on a level. For the sake of strict equality the 45 millions of note issues included in the British deposits should be deducted, as the American total does not appear to include notes. The British total thus corrected would be 843 millions sterling, and the American 965 millions, or 122 millions more. If the comparison as here stated were absolutely correct on both sides it would speak well for British banks, but there is reason to believe that it in various ways favours the Americans. From the much greater number of their banks it may be fairly concluded that they have a correspondingly larger amount of duplicate and triplicate deposits. A good deal of their deposit money may have been counted in fact three or four times over.

Let the comparison stand, however, as it is, and nothing more be claimed than practical equality as regards deposits between British banks and American. But aggregate amounts do not in such a case prove much. The difference in population between the two countries ought to be taken into account. The American deposits have been drawn from 77 millions of people, and have to be distributed over a proportionately large area, whereas the British deposits have to be divided among only 41 millions. Their average per head is over £20, while the American is \$70 or £14.

The bearing of these comparisons will now appear. The financial operations of a country

must be determined to a large degree by the extent of its banking resources. The latter are a good measure of its liquid capital, and it is with liquid capital that the high financier has to work. His schemes have to bear a safe proportion to the liquid capital available at the moment, or they run the risk of being caught out. By this rule a British financier would be justified in launching quite as large schemes as an American one. Or to put it more directly, operations which would be utterly rash and imprudent in London cannot be quite safe in New York. Suppose, then, that a series of billion-dollar flotations had been brought out here in rapid succession, and that every important bank in London was known to be committed to them, would the public feel quite comfortable about it? That is in a sentence what has happened in New York, and there can be no doubt that New York is feeling uncomfortable over it. How far the banks have compromised themselves in the "Morganeering" campaign is known only to themselves. It is no idle fear, however, that they may have all they can do to see it through.

Startling, but no doubt true, is the statement of the Committee on Banking and Currency that "the banks of our country are owing the people nearly 9000 million dollars, and the people in turn are owing the banks more than 6000 million dollars, and the guarantee of each is American honour—the first and best asset of this Republic." American honour is indeed pledged to a very sub-

stantial amount. On balance the banks owe the people about 2130 million dollars, or 426 millions sterling. But in point of fact they are responsible for 10,720 million dollars—namely, to their depositors for 8619 millions and to their shareholders for 2102 millions. And that is only their financial responsibility. Above and beyond it there is a moral responsibility of still greater consequence to the community at large, that these immense credits shall be so used and controlled as to avoid accidents which might throw the whole business machinery out of gear.

From this point of view no class of commercial men carry such a heavy responsibility as bankers. It is bad enough that individual customers should lose money through their fault, but it is infinitely worse that the loss should extend, as it invariably does in financial panics, to thousands of innocent people. For American bankers it must be a serious reflection that any one of 12,972 persons may be the initial cause of a panic which may spread from the Atlantic to the Pacific. This thought also gives gravity to the issue now being actively discussed in the States as between single-handed local banks and central banks with branches. Many different sentiments and considerations enter into the discussion, but if it could be determined on practical merits, the chief question asked would be, Which plan is safer for the depositors and note-holders?

That is the crucial test to be applied to the



banking branch of the industrial problem. The thirteen thousand banks under review may have many other merits. They may be enterprising, remunerative, and a benefit to their districts, as well as a credit to their managers. But the ultimate test they will have to be judged by is how they have husbanded the money of their note-holders and depositors. If it has been put into schemes which will successfully bear the strain of an industrial ebb-tide, good and well. But if the ebb-tide when it comes, as it must do sooner or later, leaves many stranded undertakings behind it, the banks will have a heavy reckoning to face. Next to the boomers-in-chief they will have the greatest responsibility, for in most cases they furnished the initial capital and took an active hand in the underwriting. This of course applies specially to the New York, Boston, Philadelphia, and Chicago banks, but in a modified degree it is also true of many banks in the interior.

There has been a vast amount of financing all over the States in the past five or six years, and the banks are largely involved in it. In New York underwriting has been practised with even a freer hand than it used to be in London in the palmy days of the Barings. Their methods seem to have been revived for the occasion and improved upon. The champion promoters have a complete underwriting machinery at their disposal. For every fresh issue a list is sent round to the principal banks—foreign as well as American—and

subscriptions are invited—or rather we should say granted as a privilege. Sometimes the banks are allowed to fix their own amounts, but if the plum is considered particularly luscious they have the amounts written in for them beforehand. It saves them from the possible error of being too greedy. City men can remember well how that sort of finance flourished during the Argentine boom and how it ended in 1890. It might have been much worse if we could imagine the big joint-stock banks so far left to themselves as to have shared in it. To their lasting credit they left it severely alone, and when the collapse came they were able to stand in the breach, strong, uncompromised, and ready to help.

One could wish that it might be so in New York also when the inevitable sequel arrives. But few if any of the New York banks have stood aloof from the underwriting craze. The blandishments of Mr Pierpont Morgan have been irresistible to most of them. It is to be feared, therefore, that in the day of trial there will be few if any financial institutions strong, uncompromised, and ready to step into the breach as the London joint-stock banks did in 1890. As ten just men might have saved Sodom and Gomorrah, so a comparatively small number of trusted banks may do much to stem a panic. But if all of them have played with the fire there may be few able to help in putting it out. The amount of underwriting of trusts and syndicates that has been done lately

in New York is a sinister feature in the banking situation. The New York banks are entitled of course to their own opinions as to the propriety of such business. No doubt they consider it quite legitimate or they would not be so heavily engaged in it; but however easy it may be for each participant to justify to himself his own share of it, in the mass it assumes a more serious aspect. Every bank involved in it may well wish that it had not so many associates.

Next to underwriting, syndicating is a probable source of future trouble in New York. Syndicates of all kinds and in all markets are being financed by banks of various degrees of solidity. They are, more than any other kind of speculation, at the mercy of future events. From day to day they are taking chances on what may happen in the next half hour. So far nothing terrible has happened this year, but the air is full of alarms as to what 1903 may bring forth. Dear money, a falling-off in trade, and sundry other dark spots begin to show on the horizon. The speculating syndicates may well feel uneasy, and the banks that are wet-nursing them cannot feel very comfortable either. It will be no great misfortune if the syndicates should have to go, but if the reaction should not stop there, if it should drag down some of the banks, what then? That has all happened before when New York was a much smaller place than it is now and a great deal less important financially. Then it caused trouble

enough, even when there had been no underwriting or syndicating of billion-dollar deals as we have seen lately.

Should in the near future a severe strain be thrown on the United States banks, railroad finance will have its share of responsibility, and no small one either. The connection between the principal railroads and the principal banks has of late become so intimate that, so far as management is concerned, the two are almost Siamese twins. There is not a railroad board of any consequence nowadays without a banker on it. Some of them have two or three bankers. Nor is there a New York bank of importance which has not several railroad bosses among its directors. In both these connections the community of interest is quite touching.

The close connection between railroad boards and New York bankers and financiers, which dates from the reorganisations of 1895-96, is well illustrated by the first directors of the reorganised Northern Pacific. Among them are two members of Mr Pierpont Morgan's firm, two bank presidents (National City Bank of New York and First National Bank of New York), a director of the National Bank of Commerce, a president and vice-president of two trust companies (the Metropolitan and the United States Trust), a vice-president of the Standard Oil Company, and a special representative of the Vanderbilts—the inevitable Mr Twombly. That makes nine out of fifteen, a safe majority of the board. Even the

other six are not all railroad men, the vice-president, Mr Lamont, having been put on as a friend of Mr J. J. Hill. The railroad men proper are Mr Hill himself, Mr Rea, a vice-president of the Pennsylvania road ; Mr Thomas of the Erie, and Mr Harriman of the Illinois Central, now also of the Union Pacific, Southern Pacific, and various other roads. The only Northern Pacific man pure and simple is the president, Mr Mellon.

Here is a fine example of "community of interest" set up long before the term was invented. The reorganised Northern Pacific started on its new career under the control of four men belonging to other roads and of ten financiers. The financial ramifications into which it has thereby been drawn are bewildering both in extent and variety. Through its directors it is linked with about forty roads. Including the Northern Pacific itself, this gigantic group covers nearly 108,000 miles, and is capitalised at *over six thousand million dollars*—namely, \$2,996,949,000 in stocks and \$3,194,040,000 in bonds. Its financial ramifications are still more extraordinary. Through its directors it is said to be associated with New York financial institutions "which in capital and accumulated surplus control \$157,709,361. Four Northern Pacific directors are on the boards of the National City Bank and the United States Trust Company, three on those of the Farmers' Loan and Trust Company, Guarantee Trust Company, and National Bank of Commerce ; two on those of the American Surety Company,

Bowery Savings Bank, Hanover National Bank, Lincoln National Bank, New York Security and Trust Company, and the Second National Bank, and one in each of the other boards indicated. Directors of the Northern Pacific are also directors or trustees of life and fire insurance companies representing gross assets of \$836,237,488, and express companies with a combined capital stock of \$1,517,396,000."

The Northern Pacific may be rather an extreme example of the financial Laocoön which has got all the principal railroad systems in its grasp, but in a greater or less degree the same thing is true of them all. It can be readily inferred how little real independence is left to the practical managers of roads thus controlled. The financial oligarchs must be obeyed under penalty, not merely of losing one's present position, but of being boycotted on all other American roads. The strongest and most conscientious president is not to quarrel with a dozen men who control among them forty roads aggregating over a hundred thousand miles. In the old days railroad presidents were perhaps a little too powerful, but the tables have been effectually turned on them now. Nine-tenths of them simply execute the decisions of boards standing in the closest possible relationship with Wall Street. If not personally operating in Wall Street, they are directing the banks, trust companies, and insurance companies which furnish Wall Street with the money for its sensational pyrotechnics.

If there were no other danger, these extensive and ever-increasing industrial ramifications of the New York banks would give cause for uneasiness as to how they may be able to weather the next financial squall. Some of the new-fangled combinations may then break up without great harm being done. So long as the banks present a calm firm front there will be no serious peril, but two or three bank failures might strike alarm into the whole country. Business men would consider that an evil omen, because they know how closely associated the principal banks have been with the 'Morganeering' campaign, and how badly they might be crippled if it went wrong. They are aware how many millions of dollars have been drawn from the West to New York to keep Wall Street going. They may also have a shrewd guess as to the reason for the extraordinary borrowing operations lately carried on in Europe for New York account. If Paris or Berlin were beating around for money with similar zeal it would be inferred that there was some strain on their banking resources at home.

Such a mass of bank credits as now exist in the United States is necessarily subject to continual changes. At one time it is moving east and another west. Now it is gravitating toward the cities and then it is flowing back to the interior. In the autumn the farmers need a large portion of it to move their crops to market, and in winter they are sending it east again to be deposited in



the New York banks or lent in Wall Street. Of late this east and west movement is said to have undergone a significant modification. The western banks need much less help than they formerly did to finance their crops. On the other hand, they have larger balances at the end of the year to invest. Consequently, the Western States are swinging round from a debtor to a creditor position. The western banks, instead of having to borrow from St Paul, Chicago, and New York, are generally lenders in these cities. As a final result of these variations, a growing proportion of the total banking resources of the United States is now permanently employed at the eastern centres, notably New York.

This is not merely a historical fact. It is an event full of financial meaning. It signifies that the employment of liquid capital in the States is changing its character. It is becoming more urban and less rural; more speculative and less agricultural. The change in question cannot be traced as regards all the thirteen thousand banks, the greater number of them being too small to have all their operations minutely classified. Full and reliable statistics are obtainable only as to the national banks, which form much the most important group. They number nearly a third of the whole—4165 out of 12,972; own more than half of the aggregate capital—645 out of 1138 millions; carry fully a third of the deposits—3035 out of 8619 millions; and make nearly one-half of

the loans—2981 million dollars out of 6491 millions. When detailed comparisons are required it is the national banks alone that can be dealt with. Federal statistics are, as a rule, limited to them. Though the state banks are more numerous—5204 against 4165—they do a comparatively small share of the total business, and it is difficult to trace how they do it.

But the national banks are sufficiently representative to furnish a fair test of the banking business of the States. It is instructive to observe that fully a fifth of their loan money is employed in New York—611 millions out of 2981 million dollars. This 611 millions is controlled by 42 banks, an average of 15 million dollars each. Twelve banks in Chicago loan in the aggregate 167 million dollars, or 14 million dollars each. Seven banks in St Louis loan nearly 75 million dollars, or  $10\frac{1}{2}$  millions each. These three "Central Reserve Cities," as they are termed by the Treasury, have 853 million dollars, or nearly one-third of the total amount of loan money belonging to the national banks. In other words, 61 city banks do almost half as much lending as the other 4104 do.

The official returns tell us even more than that. They indicate the sort of business done. In the States there are four classes of bank loans. The two chief divisions are into commercial and collateral loans, and each of these is again subdivided into demand and time loans. Commercial paper,

for instance, may be discounted with one or more names, or advances repayable on demand may be similarly guaranteed. Collateral loans may be either on demand or on time secured by bonds, stocks, mortgages, or real estate. Two-thirds of the business of the New York banks appears to be in demand and time loans on stocks, &c.,—the usual Wall Street operation. In September 1901 they had about 400 million dollars so employed, against 210 million dollars in commercial paper. The Chicago proportions were nearly 66 million dollars on stock, and fully 100 millions in commercial paper. The St Louis banks divide their favours equally between commercial and collateral—37 million dollars each.

The "Central Reserve City" banks (New York, Chicago, and St Louis) are a class by themselves. A second group—275 in number—are located in the "Reserve Cities," of which there are twenty-nine. The aggregate of their loans is 800 million dollars, or 50 million dollars less than the New York, Chicago, and St Louis group. The larger half, or say 434 million dollars, is commercial, against 366 millions collateral. The country banks form a third group, numerically by far the largest, though it has less than half the amount of loans. It covers all the states and territories along with one of the new colonies—Hawaii. The 3885 national banks of this class were lending last September 1365 million dollars—an average of 350,000 dollars each. They were very little in

the stock-jobbing business, their collateral loans having aggregated only 382 million dollars against 983 million dollars employed in discounts, &c.

The total number of national banks in the return of September 1901 is 4221—56 more than in the above table, which is of earlier date. The aggregate loans are 3018 million dollars, or 27 millions more than in the table. As a useful illustration of the kind of banking carried on by the national banks, we subjoin an analysis of their loans according to the latest official return :—

Demand paper, with one or more names . . . . .	\$211,612,695
Time do. . . . .	1,555,251,407
	<hr/>
	1,766,864,102
Demand loans on stocks . . . . .	665,697,417
Time do. . . . .	586,054,399
	<hr/>
	1,251,751,816
	<hr/>
Total . . . . .	<u>\$3,018,615,918</u>

## CHAPTER XII.

CORPORATE FACTORS (*continued*).

## II. THE TRUSTS.

By rights the more extensively a term is used the more exact should be the meaning attached to it. But this rule seldom holds in actual life. Oftener than not it is reversed. In countries like the United States, where popular language is to a large extent of newspaper manufacture, words seem to lose precision of meaning as they become more current. The reason is that they are less carefully used, and that new applications of them are being continually introduced which wander further and further from their original intention. The word "trust," now on every American tongue and in every American newspaper, is one of those which grow more and more vague as they come into wider use. Though perhaps the most active word in their vocabulary, it is the most difficult for Americans to define. So familiar is it in business circles that any large combination, financial, commercial, or industrial, is apt to be called a "trust," and liable to be abused as such.

Needless to say, the term is very often misapplied. Among so-called "trusts" there are wider differences than among republics or monarchies. They differ from each other in every possible way—in their historical origin, in their sphere of operation, and in their legal character. Long before the name became a term of reproach there were "trusts" in the United States of unquestioned utility and legality. Prominent examples of these are to be seen in the so-called trust companies of New York and other Atlantic cities. They have very legitimate and useful functions to perform in acting as trustees for mortgages, executors for deceased estates, and financial agents generally. So well recognised is their position that several British companies have been modelled on them, notably the Trustees', Executors', and Securities Corporation. Latterly they have made inroads into banking business which rather compromise their original programme, but in so far as they act simply as trustees they are of genuine public service.

Among the older-fashioned trusts to which the name was originally limited, "voting trusts" are also well known in American finance. They have been employed, generally with good effect, in railroad and other reorganisations where it has been found desirable to concentrate the control of the reorganised property for a time in a few responsible hands. "Voting trusts" were attached to many of the reorganisations of 1894-96, and

though most of them have since been dissolved, some still survive. The most important of them is that of the Philadelphia and Reading Railroad Company. "Voting trusts" may be said to have sprung from two motives—one, the natural desire of the reorganisers to retain control of the management until the reorganisation was firmly established; and the other, the desire of the stockholders to guard themselves against market risks during the transition period. They, in fact, gave to certain experts in whom they had confidence a power of attorney to vote for them as well as to act for them in the management of their property. This is a special and temporary arrangement, an essential feature of it being that the expiry of the trust, either by effluxion of time or in a certain event, is always provided for.

Harmless and even beneficent as the older forms of trust are, they no doubt suggested the younger and more questionable breed. The originators of the latter perceived the advantages of the trust principle. They found in it something to conjure with—a name familiar to Americans and associated in their minds with a most reputable class of business. They appropriated it and adapted it as well as they could to their own ends. The new development was not necessarily vicious or even illegitimate. It was possible to go a good long way beyond the original models without actual abuse of their principles. Numerous and varied as the younger trusts are, there is hardly one of



them which can be condemned off-hand either on legal or moral grounds. The worst that can be said of them so far is that they are legally challengeable and financially dangerous. Against one or two of the most notorious of them action has been taken at the direct instance of President Roosevelt, but while setting the law in motion he has been particularly careful to prejudge nothing regarding them. He has placed them *sub judice*, and it may be a long while before they get beyond that stage. It is not even clear as yet what the test point with them will be—whether their monopolistic tendency, or their exorbitant power, or their danger to the community.

Vague and much misapplied as the word “trust” undoubtedly is, we are not wholly without attempted definitions. Twice at least the matter has had to be dealt with officially. In 1890 Congress passed an anti-trust law in which some kind of technical meaning had to be given to the term. It was far, however, from being exact, as the contradictory decisions rendered under the law sufficiently indicate. Constructively it declares illegal any form of organisation under which the stockholders of separate companies assign their stocks to a certain number of trustees, thus giving to these trustees an irrevocable power of attorney to vote the stock as they see fit. But the title of the Act conveys a better idea of its object than any formal definition in it: “An Act to protect Trade and Commerce against the unlawful restraint of Monopolies” is

its full name. From this point of view the object of the trust would be more important than the form of organisation. In other words, no form of organisation would be of itself illegal without proof of illegal design. Monopoly in restraint of trade would have to be proved as an essential feature.

Another public department, the Census Bureau, has had to grapple with the trust problem in its technical bearings. Its task was easier, however, than that of Congress and the courts of law, inasmuch as it had to handle only the industrial side of the question. Very wisely it dismissed the disputable term "trust" altogether and substituted for it "industrial combination." This admitted of definition, or at least of enough for the purposes of the census. The rule finally adopted was "to consider no aggregation of mills an industrial combination unless it consists of a number of formerly independent mills which have been brought together into one company under a charter obtained for that purpose." This exactly fits the case of the United States Steel Corporation, which accordingly figures in the bulletin as the example *par excellence* of an up-to-date industrial combination. Historically, however, the Standard Oil Company claims precedence.

The Standard Oil Company is the oldest and toughest bogey of anti-trust writers. Every detail of its history ought by this time to be well known, for never was a commercial institution subjected to such a fierce fire of criticism and more or less

biased investigation. Its founders, Messrs Rockefeller and Flagler, have appeared again and again before committees of Congress and commissions innumerable. All questions put to them, however personal, they have answered with apparent frankness, and any defects in their evidence have been liberally made good by their opponents. This king of monopolies had a very modest origin. Its foundation was laid in 1867 by the union of four small firms of oil-refiners in Ohio. Three years later (1870) it was reorganised on a broader basis with a capital of a million dollars. In another two years (1872) it increased its capital to two and a half million dollars, and three years' further growth warranted another increase in 1875 to three and a half million dollars.

With this capital, which would hardly be considered enough nowadays for a Broadway store, the Rockefellers captured in a few years the whole of the oil trade of the United States. When they started there were about 250 refineries in the oil regions. They owned only 4 per cent of them, but by 1879 there was scarcely an independent refiner left. The Standard Oil Company had its paw on nearly every one of them. But from motives of delicacy or policy, or both, it did not wish to swallow them right out. It preferred to continue them under a mask of independence, so the Standard Oil Trust was formed, with nine trustees, all of course Rockefeller men. It took over the entire stock of 14 companies and a con-

trolling interest in 25 more. This, so far as we can trace, is the earliest form of the monopolist trust, which has reached its apotheosis in Mr Pierpont Morgan. From it afterwards sprang the "voting trust," of which Mr Morgan made such liberal use in his railroad reorganisation.

The Standard Oil Trust was simply an umbrella for Mr John D. Rockefeller. It held more than one-half of the stock of the constituent companies and issued its own certificates against it. Mr Rockefeller owned more than half of the certificates, and could consequently wag both the tail and the dog. But he was not allowed to do it without opposition. His competitors, whom he was trying to freeze out, were many of them as resolute men as himself. They carried on a continuous campaign against him for twenty-five years in the law courts and in the state legislatures. Though they could not stop his relentless progress, they balked him at many points. His Standard Oil Trust was at their instance declared to be illegal in several states, and at last in 1892 Mr Rockefeller had it rechristened.

There could not be a more instructive example of the modern monopolist trust than that of 1882, which was the parent of them all. The Standard Oil Trust contained not only the germ but the full-blown monopoly as it flourishes to-day. The fact that such insatiable dogs in the manger as the Standard Oil people had to give it up ten years ago is a strong argument against it now. But

though the State laws which condemned and ultimately killed the original oil trust have increased by scores, and though they have been reinforced by a federal law, not a single effective attack has yet been made on the later trusts. They have increased a hundredfold faster than the laws against them.

It would be impossible to notice here all the existing trusts, or even the principal ones. The most we can do is to sketch one or two of the most typical. The greatest in every way now in existence is the so-called Steel Trust *alias* the Billion-Dollar Trust. It is the most remarkable of the lot, not only for its gigantic capitalisation but for the peculiarities of its legal constitution, and for the predominant position it has assumed in one of the chief industries of the United States. In dealing with it we have the advantage of a semi-official history of its birth and infancy drawn from the report of the famous Industrial Commission of 1900—an investigation which was a masterpiece of its kind.

In order to assist the reader in following the disclosures of the Industrial Commission, it may be premised that the United States Steel Corporation as originally formed contained ten separate companies, most of which were combinations of older concerns. Some of the combines were in the fourth or fifth generation, and each generation had been well watered at its birth. Subsequently an eleventh member was added to the family—the

Shelby Steel Tube Company. The original ten are enumerated below, with their respective capitals, distinguishing preferred and common stocks :—

CONSTITUENT COMPANIES OF THE UNITED STATES  
STEEL CORPORATION.

	Preferred.	Common.
The Carnegie Company . . . . .	\$78,400,000	\$78,400,000
Federal Steel . . . . .	53,260,900	46,484,300
American Steel and Wire . . . . .	40,000,000	50,000,000
National Tube . . . . .	40,000,000	40,000,000
American Bridge . . . . .	30,527,800	30,527,800
National Steel (bonds \$2,811,000)	27,000,000	32,000,000
American Sheet Steel . . . . .	24,500,000	24,500,000
American Tinplate . . . . .	18,325,000	28,000,000
American Steel Hoop . . . . .	14,000,000	19,000,000
Lake Superior Consolidated Iron Mines . . . . .	14,712,970	14,712,970
	<u>\$340,726,670</u>	<u>\$363,625,070</u>

In exchange for the above \$2,811,000 of bonds, \$340,726,000 of preference stock, and \$363,652,000 of common stock—in all 707 million dollars—the United States Steel Corporation took power to issue 1404 million dollars of its own stocks and bonds, namely—

Bonds . . . . .	\$304,000,000
Preferred Stock . . . . .	550,000,000
Common " . . . . .	550,000,000
	<u>\$1,404,000,000</u>

At the same time the underlying companies had unexhausted issuing powers to the amount of 122

million dollars, and as their individual organisations are preserved, their capital can at any time be increased to that extent without the stockholders of the United States Steel Corporation having a chance to say a word against it. They may not even know till long after it has been done.



## CHAPTER XIII.

## CORPORATE FACTORS.

II. THE TRUSTS (*continued*).

WE return now to the Industrial Commission. When it was hearing evidence in 1899-1900 there was no thought as yet of the Steel Trust. The ten companies out of which it was formed were still comparatively young. They were, in fact, the shining examples of the day in up-to-date trusts. The Federal Steel Company's 200 million dollars (authorised) and the Carnegie Company's 160 million dollars then "held the record" in financial magnificence.

The first of the ten little "Steels" investigated was the American Tinplate Company. Its inception was described to the Commission by Judge Moore, its foster-parent. Twenty-nine concerns were absorbed completely and nine others partially by it—the latter having other manufactures than tin-plate which were left out. The companies were arranged with as to the prices to be put on the various plants, and then Judge Moore made a purchase on that basis. The

vendors had the option to take payment either in cash or in stock of the new company—100 per cent preference and 100 per cent common. As to the latter Judge Moore was quite frank with the Commission. "Everybody," he said, "knows what they are getting when they get common stock,—they know they are not getting anything that represents assets."

The American Tinplate Company might not have been so very dropsical if that had been all the water put into it. But Judge Moore had to get an extra ten million dollars of common for contingencies. It was necessary, he explained, "to pay commissions and bonuses in order to obtain many of the plants." As for himself, "he made his profit in his own way." When everything was totted up, it took 18 million dollars of preferred and 28 millions of common to cover it. The amount of preferred stock was admitted by the vendors themselves to be a liberal price for their properties. One of them owned to a profit of 25 or 30 per cent without counting his common stock at all. Another estimated that the whole 272 mills in the combination could be duplicated for 12 million dollars, or two-thirds of the preferred stock. According to a third, the capital of the combination was three to five times greater than the cash value of the plants at the time they were purchased. Of course the new company was registered in New Jersey, the date January 6, 1899. In little more than a year it

underwent a new transfiguration compared with which the first was modesty itself.

Very contradictory accounts were given to the Commission as to the original objects of the Tin Trust. Its promoters protested that their innocent intention was to economise in cost of production, but one of the vendors, a Mr Griffiths, gave them away badly when he blurted out that when he was approached "the chief advantage held forth to him was the ability to control the market absolutely and to prevent competition." They did get control of the market, and when the Commission heard evidence, though the combination was only a few months old, the price of tinplates had already risen from \$2.65 per box to \$4.65. This was in October 1899, and the trust, as already shown, had been registered in the previous January. The explanation offered of such a stiff advance was that materials had risen proportionately more. The price of steel plates had gone up from \$17½ to \$38 per ton—coincidentally with the formation of another little trust of Judge Moore to regulate steel.

This was the National Steel Company, a twin-sister of the American Tinplate Company, registered in New Jersey a month later—namely, in February 1899. Its original assets, as detailed to the Commission by the president of the company, were 15 blast-furnaces, 6 steel plants, 9 boats for transporting ore on the lakes, and cer-

tain iron mines in Michigan capable of producing 1,250,000, to 1,400,000 tons per annum. These assets would not seem to have been too lightly capitalised at 59 million dollars—27 millions in preferred stock and 32 millions of common. But that was only the first step in a series of ascending valuations. To use Judge Moore's terse phrase—we all know what they were getting when they got common stock. We may also have our own ideas as to what the extra five millions of common stock was intended for. But these now familiar incidents pale before the startling rise in prices which immediately followed the birth of this steel combine just as after the birth of the National Tinplate Company. Pig-iron had averaged in 1898 \$10.33 per ton, and in October 1899 it was up to \$23. Steel billets had risen contemporaneously from an average of \$15.30 per ton to \$38, and "under special circumstances to \$44."

The Federal Steel Company is a kind of elder brother to the Steel Trust, and served as a model for it. The Roman hand of Mr Pierpont Morgan is seen in it, doing in a tentative experimental way what afterwards blossomed out into perfect financial art in the Steel Trust. Organised in September 1898 as a stockholding and not an operating company, it acquired—through Mr Morgan—practically the whole of the stocks of four concerns, all of which were already overgrown. They were the Minnesota Iron Company, owning 150,000 acres of iron-ore land in the Vermilion

and Mesaba ranges, a railway over 100 miles long, a harbour specially built for shipping ore, and 22 steamers for carrying ore on the lakes; the Illinois Steel Company, with five separate steel plants capable of producing a million and a half tons of pig-iron yearly, also coal-lands in Pennsylvania, West Virginia, Wisconsin, and Michigan; the Lorraine Steel Company, producing half a million tons of pig-iron per annum and making a speciality of rails for street railways; and the Elgin, Jolliet, and Eastern Railroad, better known as the Outer Belt line of Chicago.

When the insiders had bought up nearly all the shares of the four companies they agreed to exchange them for Federal Steel stock in certain proportions of preferred and common, according to the usual formula. Their original capitals amounted to 53 million dollars — namely, Minnesota Iron Company, \$16,500,000; Illinois Steel Company, \$18,600,000; Lorraine Steel Company, \$12,000,000; and the Elgin, Jolliet, and Eastern Railway, \$6,000,000, total \$53,150,000. In making the exchange the promoters required cash payments of fully 14 million dollars to cover expenses and contingencies. But a handsome *quid pro quo* was given for both shares and cash, Federal Steel stock having been issued to the amount of 53 million dollars preferred and 46 million dollars common. The latter of course was water, except as to the 14 million dollars of cash paid in. However, the Federal Steel Company could well afford

to be generous with its scrip, as it had obtained under its New Jersey constitution authority to issue 100 million dollars each of preferred and common. When it in turn was swallowed up by the Steel Trust the water cure was repeated with a still more liberal hand.

Another member of the Steel Trust is a curious study in combines. It shows with how much gusto American financiers go into this kind of business and what ingenuity they bring to bear on it. Its founder and first chairman was Mr Gates. His speciality was barbed wire, and as early as 1890 he controlled all the plants producing that article. At the end of 1897 Mr Pierpont Morgan and he got together on a scheme for consolidating all the wire plants in the country. After twelve months' negotiating they secured about a dozen plants, 70 per cent of which were valued by Mr Morgan's accountants at 28 million dollars, on which basis the whole dozen might have been worth, say, 42 millions. They were charged into the combination at 75 million dollars and capitalised to the public at 90 millions—namely, 40 millions preferred and 50 millions common. Five of them were closed immediately after being taken over, thus adding considerably to the cost of the remainder. The combination started with control of from 70 to 90 per cent of the steel rod and smooth wire manufacture, 65 to 90 per cent of the wire nails, and a practical monopoly of barbed wire.

This charming combine enjoys the benefit of a 45 per cent tariff, which not only secures to it its home market, but enables it to exploit foreign markets on special terms. Mr Gates saw nothing inconsistent in the two operations, and he had at the tip of his tongue the stereotyped American plea for selling dear at home and cheap abroad. "The price," he said, "at which the American Wire and Steel Company is selling in foreign markets at present is less than the domestic price. The reason for this is that by working up a permanent foreign business the company can assure the constant operation of its mills, and thus make goods cheaper and get profits from maintaining foreign prices at times when there is a decline in the home price. . . . The prices at home and abroad are entirely independent of one another, varying according to the local demand and the cost of material in each place, and the competition. The business is run to get the largest net profit and the largest tonnage."

A comparatively small scion of the Steel Trust and the latest of Judge Moore's interesting promotions was the American Steel Hoop Company. Its modest capital was 14 million dollars of preferred stock and 19 millions of common. Its president, Mr C. S. Guthrie, is an enthusiastic believer in industrial combination, and he made out a very specious case for it before the Industrial Commission. According to him the American Steel Hoop Company is the perfection of organis-



ing and administrative skill. Each of its mills is put on to the kind of work for which it is best adapted. Every order is executed at the mill nearest its place of origin. Each mill has to make a daily report to headquarters, and a strong spirit of emulation is thereby excited among the managers. Altogether there could be nothing like the American Steel Hoop Company for proving to the world American superiority in steel hoops.

According to the Census Bureau there are 183 industrial combinations in the United States which may be classed as trusts. They all have one or other of the distinctive characteristics of trusts—control of other industrial companies either by holding a majority of their stock or otherwise; undue influence over their respective markets; excessive capitalisation. The par value of their stock and bonds exceeds 3085 million dollars, while the true value of the capital invested in them, as near as it can be ascertained, is 1458½ million dollars. More than half of their nominal capital would thus seem to be water.

Startling as that fact may be, this is still more important, that the 183 industrial combinations control quite 20 per cent of the total manufactured products of the United States! The latter had in 1890 an estimated gross value of 9372 million dollars, from which 1216 million dollars should be deducted for the value of hand trades. The gross value of factory-made products would thus be 8156 million dollars. The aggregate output of the 183

industrial combinations in 1900 was 1661 million dollars. A similar output in 1890 would have represented 20·4 per cent of the total factory products of the country. On the increased factory products of 1900 it would be somewhat smaller, but still much too large a proportion to be safely intrusted to 183 corporations. Nor does it seem healthy for a community that the handful of multi-millionaires at the head of these corporations should have over four hundred thousand employees in their power — 399,192 workpeople and 24,585 salaried officials; or that they should have the paying out of fully two hundred million dollars a-year in wages and salaries, with a hundred and fifty-two million dollars additional for miscellaneous expenses. The power of the purse never before so dominated any human society.

Trusts are certainly becoming a serious factor in the industrial problem, not of the United States only, but of all commercial countries. The cartel of Germany is quite as dangerous a combine as the Standard Oil Company or the Sugar Trust or the Atlantic Shipping Combine. The Americans have by no means a monopoly of this peculiar organisation. All nations have been ready enough to imitate them in a small way. The American trusts are simply larger than the others; they work more openly and are subject to franker criticism. They have also been pushed into notoriety by political and newspaper agitation.

What are still secret societies in Europe have become bogeys in the United States. Like all political bogeys, they have divided public opinion. Though their opponents may be in a large majority, they can also count on a good many friends. And therein lies the difficulty of dealing with them as an industrial factor. It still remains undecided what their ultimate position in the industrial policy of the country is to be. Politicians make a stalking-horse of them, and they will be a main issue at federal elections for years to come. It is conceivable that an anti-trust Congress may one day arise, but even then the financial position of the trusts is now so formidable that it will not be upset at the first onslaught.

On purely economic grounds the trust question is confessedly difficult. There are many eminent economists, whose *bonâ fides* and impartiality are beyond question, who hold that the trust organisation of industry is an improvement on anything that has preceded it. It has also many less discriminating and more enthusiastic champions. These are to be found in the most diverse quarters. They are numerous in commercial circles, and even among the traders who would naturally be jealous of such powerful competitors. In the protectionist wing of the Republican party it is accepted as a natural ally of high tariffs. Then it has patriotic champions who are in favour of everything that promises fresh victories for American trade. If the American people were to be

polled on the subject to-morrow it would be a very open issue. The principal weakness of the trusts at present is President Roosevelt's hostility to them. If they could have captured him their future course would have been comparatively clear.

But in any case the trusts are here to stay for some time and in some form. Their promoters are not particular as to form, and would modify them all they could to conciliate the law. As industrial factors which may become permanent, they are not to be judged, therefore, by their existing examples only. These may have many faults and extravagances which time will cure. The almost certain issue of the storm raging around them will be a well-guarded trust surrounded with severe restrictions against the abuse of its power. It will be recognised that the trusts are only a phase of the exaggerated capitalism which threatens to swamp ordinary wealth and industry. Excessive wealth is the real danger, and it may be quite as dangerous in individuals as in organisations.

## CHAPTER XIV.

CORPORATE FACTORS (*continued*).

## III. THE RAILWAYS.

THE production and distribution of material wealth are of necessity very closely allied. They intertwine at all points and are continually dependent on each other. Production demands distribution, and facilities of distribution stimulate production. The railways and canals of Pennsylvania were the principal factors in creating its coal and iron industries. Then the coal and iron industries in their turn became a main support of the railways. We find here on a vast scale what other parts of the world can show only on a small scale—the interdependence of production and distribution. So clearly do the Americans realise this phase of economic organisation that they have added to the political economy of the old school a new and important branch, which they call the science of transportation. It is the science of cheap and rapid distribution, a subject which the most prophetic eye could have seen but dimly in Adam Smith's day, and which even in John Stuart Mill's

time was only in its rudiments. It may be but an infant science still ; nevertheless, it is a giant compared with anything in the experience of past generations.

The science of transportation is going to be the special contribution of the American people to political economy. It is the most instructive feature in their economic system, and the achievements which they have accomplished through it will in future ages read almost like fables. It has been a magician's wand, calling towns into existence on the naked prairie, raising towns into cities, and cities into world-famous hives of wealth and industry. It has conjured up fortunes out of nothing and multiplied values ten-, twenty-, ay, often a hundred-fold. Millions of well-paid, well-fed labourers enjoy its blessings without ever thinking to what they owe them. For every capitalist, every large manufacturer, every prosperous merchant there could have been without it, there are now thousands. The busy factories of New England and the mammoth stores of Chicago have sprung from it as directly as the silver mines of Colorado or Nevada. The wealth-creating power of North America is to a very large extent the product of its wealth-distributing facilities. But for the capacity of the railways to carry wheat from the Missouri River to the Atlantic coast for a few cents per bushel there would have been no wheat farms west of Chicago, and many of the richest agricultural States in the Union might still have

been in possession of the buffalo and the Red Indian.

American railroads have indeed been an incalculable boon to everybody connected with them except their original owners. They have contributed more than any other single power to the building up of the United States. They have also done most for the development of American character. Next to the conquest of the soil it was their railway building which made them what they are. No more strenuous generation of mankind has ever existed than the American pioneers who, from the middle of the nineteenth century, fought their way west. For a time their progress was checked by the Civil War, but having fought it to a finish they resumed their westward course with unabated, or rather with intensified, ardour. The echoes of the war had hardly died away when armies of veterans were pushing the iron road across the Continent. No sooner had they reached the Pacific with one road than they started to make another—this time from Lake Superior to Portland. In the financial vicissitudes of later years this road, the Northern Pacific, had many a sharp corner to turn. But with American pluck it struggled through its difficulties and has become a living symbol of the irresistible progress of the great west.

Not alone in the west, but in every other direction the advance of the American people is to be measured by their railroad building. If the old



country had the start of them, they did not allow themselves to be left behind. Already in 1832 they had over two hundred miles in operation; in 1835 this had increased to over a thousand miles; in 1839 the thousand miles was more than doubled; in 1842 it reached four thousand miles, and at the middle point of the century it was up to nine thousand miles. From this point (1850) down to the outbreak of the Civil War new building went ahead at the rate of two thousand miles a-year. The war, of course, was bad for railroads as for every other civil industry, but even before it ended the old rate of extension was resumed. In 1865-66 more than seventeen hundred miles of new road was built. After which came a vehement outburst of railroading. Between 1867 and 1874 the new mileage exceeded thirty-one thousand miles (31,275), and very nearly doubled the previously existing total. The panic of 1873 obliged the railroaders to slow down for a few years, but in 1879 they were going ahead again at full speed. The furious building of the four years 1880-83 inclusive, precipitated another crisis, which however left behind it the solid gain of nearly thirty-five thousand miles of new railway.

The crisis of 1884 was quickly surmounted, and the demand for railways to open up the country was so strong that it could not be denied. New building was resumed in 1886 on the old scale, and before the next breakdown, at the end of 1890, more than thirty-eight thousand miles had been

added. In the first of the three periods named (1867-73) the railroad system had grown at the rate of 5000 miles a-year; in the second (1880-83) at the rate of over 8700 miles a-year; and in the third (1886-90) at the rate of 7600 miles a-year. The banner years of railroading had been 1882 with 11,569 miles increase, and 1887 with 12,876 miles. Since 1890, however, much more cautious progress has been made. The total increase for the whole of the closing decade of the century was only 27,418 miles, or 2741 miles per annum. Whether this is to be a temporary pause like so many previous ones, or a permanent change in the railroad policy of the country, must be left to the future to decide. Whatever the cause, the railroad building of the last three decades seems to indicate that it reached its zenith in the 'Eighties, and has since been on the decline. The new building of 1870-79 aggregated only 23,000 miles, while that of 1880-89 exceeded 68,000 miles. In 1890-99 it fell back almost to the level of the 'Seventies, but the twentieth century has opened with a moderate increase in the rate of growth.

Not only did American railroads open up the country and lay the foundation of a prosperous agriculture, but they created directly or indirectly most of its staple industries. They furnished the largest and best market for domestic iron and steel. They supplied cheap fuel to every industrial centre. They were the principal importers of foreign labour and capital. They provided

the materials for a distinctively American stock market, out of which grew in its turn an American system of finance. For years the history of the railroads was the history of the country. They may hold a less prominent position hereafter amid the crowd of new interests that are pressing forward, but the dominant *rôle* they have played in the past is undeniable.

Twelve or fourteen years ago, when railroads were still the chief and almost the only financial power in Wall Street, the following fervid but well-justified tribute was paid to their influence:—

The growth of our railroad system has been coincident with the marvellous development of our national wealth and production; they practically stand together as cause and effect. Sixty years ago we had, say, 12,000,000 people and no railroads. New York had about 200,000 population, Philadelphia 167,000, Baltimore 80,000, and Boston 61,000. No other city of the country numbered 50,000. St Louis had less than 6000; Chicago, Kansas City, and Denver were unheard of. In the thirty-five years that followed we built an average of a thousand miles of railroad per year, and then in eight years built thirty-five thousand miles more. This eight years' construction represented an expenditure of nearly fifteen hundred million dollars. What was the foundation or reason for such a vast outlay? It was found in the wonderful development of our agricultural and mineral resources which had followed the earlier railway work. Great states had been created and populated by reason of the transportation facilities provided, and yet, beyond the lines in existence in 1865, there stretched a vast country whose capacity had scarcely been touched. It was in the western and

south-western states and territories that more than one-third of the eight years' construction was done. The mileage in Illinois increased from 3156 to 6589, in Iowa from 805 to 3728, in Kansas from 40 to 2100, in Missouri from 925 to 2858, in Nebraska from nothing to 1107, and in Texas from 451 to 1578. The average cost per mile of the railroads of the country in 1873 is given as \$60,057, and there was one mile of railroad for each 583 inhabitants. Then came the panic of '73. The pace had been too rapid. Railroads had been built far in excess of the necessities or the welfare of the country. Financial intoxication was followed by the natural depression. In the five years ending with 1873, 28,039 miles of road had been built; in the five subsequent years only 11,499 were added. Meantime the country was growing up to the system. The overdoing of construction had proved disastrous to the people whose money had paid the bills, but the western country had been opened, and was filling up with prosperous communities. Another period of active construction set in, and in nine years, from 1879 to 1887 inclusive, no less than 67,454 miles were opened, of which nearly 13,000 miles were built in the one year, 1887.

How the western half of the United States was literally "railroaded" from virgin prairie into agricultural and mining prosperity is one of the most romantic chapters in economic history. No less romantic was the rapidity with which these prairie railroads created traffic for themselves. To the student of human progress there can be few things more interesting than to glance over an old volume of Poer's 'Manual of American Railroads' and see what roads now earning their tens of

millions per annum were doing a quarter of a century ago. The year 1876 will be a good starting-point for such a comparison, as the United States was then beginning to rally from the crushing blow it received in the panic of 1873.

From 1876 to 1901 will cover the last quarter of the nineteenth century, the period of greatest expansion the Americans have ever enjoyed. The best measure of that expansion is to be found in the growth of the railroad system. The railroad statistics of those days were neither so copious nor so scientific as they are now. It was not till 1882 that statistical science was thoroughly applied to railroad operations. In 1876 the records kept were comparatively rough and imperfect, but they covered most of the salient points. The aggregate mileage then in operation was 74,096 miles, and by 1901 it had grown to 192,193 miles—an increase of fully 150 per cent. Both gross and net earnings increased, however, at a much more rapid rate. The former advanced in the quarter of a century from 497 million dollars to 1578 million dollars, or fully threefold. Net earnings rose from 186½ million dollars to 557 millions, also about threefold.

So far well, but the most rapid increase of all occurred in the fixed charges. These advanced from less than 99 million dollars in 1876 to 421½ million dollars in 1901—almost a fivefold increase. Seeing that most of the big roads had in the interval been reorganised at least once, and many

of them twice, and that the cutting down of fixed charges is an invariable incident of reorganisation, such vigorous borrowing was somewhat ominous for the future. It had already begun to exercise a restricting influence on dividends, the branch of railroad finance which, as a rule, has the slowest growth. In this particular period the amount paid in dividends rose only from 68 million dollars to 121 millions—not much more than 50 per cent as compared with a threefold increase both in gross and net earnings. But if dividends could not keep pace with the traffic, the capitalisation of the roads found no difficulty in doing so. In 1875 the aggregate amount of stocks and bonds was 4468½ million dollars. In 1901 the bonds alone amounted to 5758½ millions, and the stocks to 5804 millions, together 11,562½ millions.

The necessary data for measuring the volume of traffic do not go further back than 1882, and, as regards that, we must content ourselves with a twenty-year comparison. The result is sufficiently remarkable, especially in respect of freight. The number of tons moved on the 114,000 miles of railroad operated in 1882 was 360 millions, and on the 192,000 miles operated in 1901 it was 1071 millions, another threefold increase. But in the same period the number of passengers carried gained only about 50 per cent. They rose from 375 millions to 584½ millions. This is a significant peculiarity of American railroad expansion—that

it is much more rapid in freight than in passenger business. In 1882 there was one passenger for every ton of freight, but in 1901 there were nearly two tons of freight to every passenger.

This predominance of freight over passenger traffic is a fact of importance from various points of view. It explains several anomalies in American railroad management—the great value set on freight, and the desperate rivalry among managers to secure it; the special attention given to moving it in the most economical way; the rapidity with which railroad earnings rise or fall in good or bad freight seasons. To take a very recent example, the unprecedented prosperity of American railroads during the past five years has been chiefly due to the great expansion of goods traffic indicated above. As the Americans would say, it has been mainly a “freight boom.” Its immediate causes have been bumper harvests, the opening up of new country, and the vast extension of settlement in the north-west. To these may have been added as the boom went on various other causes of a speculative character, but the marvellous growth of the country itself is a fact not to be got over. In order to illustrate how extensive it has been, we select several representative groups of railroads in various sections, and contrast their present traffics with those of a quarter of a century ago.



The first group consists of three trunk roads (New York-Chicago), the second of three Chicago roads, the third of three Southern roads, the fourth of three Southern Pacific roads, and the fifth of three Northern Pacific roads:—

### I. THREE TRUNK ROADS.

	1876.	1901.
Pennsylvania . . . .	\$36,891,061	\$101,329,795
New York Central . . . .	28,046,588	66,333,111
Erie . . . . .	15,852,461	39,102,302
	<u>\$80,790,110</u>	<u>\$206,765,208</u>

### II. THREE CHICAGO ROADS.

Chicago, Burlington, and Quincy	\$12,057,795	\$50,051,988
Chicago and North-Western .	12,773,711	43,098,587
Chicago, Milwaukee, and St Paul	8,054,171	42,369,012
	<u>\$32,885,677</u>	<u>\$135,519,587</u>

### III. THREE SOUTHERN ROADS.

Southern <sup>1</sup> . . . . .	\$937,198	\$34,660,482
Louisville and Nashville . .	4,286,167	28,022,206
Illinois Central . . . . .	4,889,850	36,900,460
	<u>\$10,113,215</u>	<u>\$99,583,148</u>

<sup>1</sup> Formerly Richmond and Danville.

### IV. THREE SOUTH PACIFIC ROADS.

Atchison . . . . .	\$2,486,582	\$54,474,822
Southern Pacific . . . . .	19,155,055	68,128,140
Union . . . . .	12,886,859	43,639,264
	<u>\$34,528,496</u>	<u>\$166,242,226</u>

V. THREE NORTH PACIFIC ROADS.

	1876.	1901.
Canadian Pacific . . .	...	\$30,855,203
Great Northern . . .	\$1,006,045	30,564,887
Northern Pacific . . .	739,745	32,560,983
	<u>\$1,745,790</u>	<u>\$93,981,073</u>

THE FIVE GROUPS COMBINED.

Trunk roads . . .	\$80,790,110	\$206,765,208
Chicago roads . . .	32,885,677	135,519,587
Southern roads . . .	10,113,215	99,583,148
South Pacific . . .	34,528,496	166,242,226
North Pacific . . .	1,745,790	93,981,073
	<u>\$160,063,288</u>	<u>\$702,091,242</u>

In twenty-five years the traffic earnings of these roads more than quadrupled. The volume of traffic—that is, the number of tons and of passengers carried—increased eight- or ten-fold. All along rates were being reduced, and at the end of the period the roads were doing at least three times as much work for the same money as they had done at the commencement. During the twenty-five years the roads themselves underwent immense changes. They added greatly to their mileage, their equipment, and their terminal accommodation. From rough half-built local lines they developed into vast systems of seven or eight thousand miles each. It is not suggested that there is any fair comparison between them in their two different stages—as railroads. What we are

contrasting is the movement of traffic at the two periods. It indicates, in the first place, an enormous development of country, and, in the second, the creation of a railroad system without parallel. The British railway system, which comes nearest to it, carried in 1901 only 416 million tons against the American  $1071\frac{1}{2}$  million tons. But in passengers it has still the lead, its aggregate in 1901 having been 1172 millions against the American  $584\frac{1}{2}$  millions.

## CHAPTER XV.

## CORPORATE FACTORS.

III. THE RAILWAYS (*continued*).

THE financial history of American railroads is much less satisfactory than the growth of their traffic. It has been a succession of violent ups and downs, accompanied by the severest extremes of glorification and depression. When on the crest of the wave Americans imagine that they are to keep on rising for ever. When in the trough of the wave they think it is all over with them, and that the deluge has come to stay. These violent swings of the pendulum follow each other at short intervals. Each decade has, as a rule, a boom and a break of its own. But it is hardly worth while to carry such an inquiry further back than 1873, memorable in London as the year of the Erie crisis, and in New York as the year of the first Northern Pacific collapse.

On that occasion the railroads required six or seven years to right themselves again. It was the magnificent crops of 1879, coincident with short crops in Europe, that set them up. The

Wabash boom of 1880-81 established a new high-water mark, which, however, was short-lived. A second collapse occurred in 1882, followed by a brief rally. In 1884 came the Nickel Plate and West Shore crisis. The Vanderbilts having conjured away that spectre there was once more joy in Wall Street, but only for a year or two. A sharp reaction occurred in 1888, and it had just been overcome when the Baring crisis caused another upset. Bountiful crops pulled the country through again, but only to find itself confronted by the silver spectre. This terrorised Wall Street for several years, and was only partially laid by Mr McKinley's victory over Bryanism in the presidential campaign of 1896. The McKinley *régime*, which began with his inauguration in March 1897, has been not only the strongest but the most prolonged run of prosperity the Americans have ever had. There is indeed some excuse for them thinking that it differs from all previous booms, and, unlike them, is going to last for ever. This pleasant belief has taken strong hold of Wall Street, and is a main cause of the fact that nearly every railroad stock stands to-day at a record height.

Nevertheless the old adage may still hold true, that there is nothing new under the sun—not even in Wall Street. There previous records have been made and broken; booms have shot up, exploded, and collapsed; Napoleons of finance have had their little day, as their successors

are having now ; railroad traffics have increased hand over hand and fallen away again ; trade has had its flood-tides and its ebbs ; exports have gone up with a rush and gone down again ; waves of prosperity have been succeeded by rocky spells of adversity. But the Americans are blessed with short memories, and just now 1873, 1884, 1888, 1890, and even 1893 are to them as years that never existed.

Yet what happened in those years ought to be burned into the heart of every railroad stockholder. In the three years after the panic of 1873, though seven thousand miles of new railway was opened and nearly seven hundred million dollars of new capital was created, the aggregate freight earnings declined by twenty-eight million dollars a-year. In 1876 there were 42 roads placed under receiverships, covering about 10 per cent of the whole existing mileage, while their bonds and stocks aggregated 467 million dollars. Next year (1877) another 38 roads, aggregating 2637 miles and carrying 220 million dollars of stocks and bonds, met a similar fate. In 1878 the financial wreckage was 27 roads of 2320 miles and 92 million dollars capital. Then the receivers had a rest for a few years while the Wabash boom was running its brilliant course.

In 1884 a new era of receiverships opened, 37 roads having gone into bankruptcy in that year. They had a total length of 11,038 miles and a total capitalisation, floating debt included, of

714¾ million dollars. Both the mileage and the capital represented about 10 per cent of the national aggregate: it is the favourite percentage. In 1885 these 37 roads were followed by 44 more, with a mileage of 8386 miles and a load of bonds and stocks amounting to 385½ million dollars. In 1886 the receiverships dropped to a trifle of 13 roads, capitalised at 70 million dollars. Between 1886 and 1888 there was a short lull, only to be succeeded by a fresh outbreak of bankruptcy in the latter year. Twenty-two roads broke down then—3270 miles and nearly 187 million dollars of bonds and stocks. The next two years (1889-90) were also a busy time for railroad receivers, 48 roads having been turned over to them, aggregating 6766 miles and nearly 205 million dollars of capital and bonded debt.

But the historic boom in receiverships occurred during the second Cleveland administration, 1893-96. As far as the railroads were concerned, that administration was one long and almost universal receivership. It began really in 1892, when 36 roads—10,508 miles, capital and bonded debt 357 million dollars—claimed the protection of the courts. This was thrown into the shade by the aggregate of 1893, which made a ghastly record: 74 roads—29,540 miles, 1781 million dollars of bonds and stocks! In the remainder of Mr Cleveland's unlucky term there were added to the holocaust 103 roads—15,555 miles, 1040



million dollars of bonds and stocks. The Cleveland receiverships of 1893-96 embraced altogether 177 roads, nearly 35,000 miles in length and carrying 2821½ million dollars of stock and bonded debt! During this disastrous period quite 20 per cent of the existing mileage and 25 per cent of the capitalisation—bonds and stocks included—were judicially moribund.

But the gloomiest of things have their bright side. From the ashes of these 177 receiverships arose, like a phoenix, Mr Pierpont Morgan and his fellow-reorganisers. As one of their countrymen said, Providence must have loved them, for they had a run of luck almost as remarkable as Mr Cleveland's evil fortune had been. The bankrupt railroads had their fixed charges cut down to the bone—largely at the expense of British holders. Bonds and stocks were heavily assessed to raise funds for giving them a fresh start in life. Ample borrowing powers were provided for them, and thus nobly equipped they set sail again. A favouring breeze caught them up and lifted them into a golden paradise more dazzling than Moslem ever dreamt of. Wall Street clothed itself in a rainbow of banner crops and record prices, all of which are expected to last for ever. If they only would!

But the possibility, even if it be the faintest possibility of reverse that Wall Street will admit, has to be taken into account. Terrible years like 1884 and 1893 may not return, but the fact that

they have been should not be utterly forgotten. If by any chance they were to return, the havoc they might commit would be beyond all precedent. In proportion to the glory of the recent boom years would be the severity of the reaction. A collapse in a market like the present, with every stock a Dutch tulip or an old master, would be like a fall from a thirty-storey sky-scraper. Compared with it the collapse of 1893 would be like an easy drop from a plain three-storey building.

In June 1901 the nominal liabilities of American railroads to their shareholders, bondholders, and the public were calculated at 12,429 million dollars. Many of the stocks now stand at premiums of from 10 to 100 per cent, while a very small number of them are at a discount. The premiums will exceed the discounts by probably 2000 million dollars, which added to the 12,429 million dollars of par values produces the amazing sum of 14,429 million dollars as the total liability of American railroads to their existing creditors and shareholders. A mere 10 per cent depreciation would cost Wall Street over *fourteen hundred million dollars*. A similar depreciation on the stocks alone, the present market valuation of which is not much under 8000 million dollars, would amount to 800 million dollars. In a real panic 10 per cent declines would be bagatelles. Wall Street has ere now seen 50 per cent of its market values wiped out as with a sponge. Even sober level-headed Boston has had almost as bad an experience. When the "rot" of

1887 set in ten of Boston's representative stocks—including, of course, Atchison—had a market value of 253 million dollars. At the end of 1888 they had shrunk by 108 million dollars, or 40 per cent !

A business mind will see at a glance what a power in any community a network of railways must be which employs over a million persons ; commands nearly twelve thousand million dollars of capital ; earns close on sixteen hundred million dollars a-year ; pays out chiefly in wages over five hundred and fifty million dollars a-year ; is responsible for four hundred and twenty million dollars a-year of interest on its bonded debt, and for one hundred and twenty million dollars a-year of dividends. To control even one of the huge systems forming the network is to be the financial and commercial dictator of a large section of the Republic. It carries almost absolute authority to make freight and passenger rates for all the traders in that section ; to fix the wages of one-half of the working men in it ; to create railroad securities *ad libitum* ; to change, convert, and shuffle them about at will ; to rule the markets in these securities, and to raise or depress market values as may suit the manipulators.

No one who has not come into close contact with American railroads and their managers can realise what a tremendous force they can be when wielded with strong bold hands, such as have now got hold of them. Neither can he appreciate the

terrible fascination which they exercise on ambitious financiers. Millionaires with the railroad fever on them would rather be president of the Pennsylvania or the New York Central than of the United States. Very probably they would account for their preference by saying that railroad finance is a much more live job than politics. With all its faults and dangers theirs is a magnificent ambition. Only exceptionally large-minded men could be capable of it. They have to possess a rare combination of faculties in order to stand any chance of success in it. They must be able to calculate with equal facility in cents and in millions of dollars. They should have imagination, strong will, and self-confidence. Organising and administrative powers are equally necessary to them. No risk should be too formidable for them to face, and no difficulty or misfortune should discourage them.

An American railroad financier should, in a word, be half steel and half indiarubber. Strange as the combination may seem, Wall Street has a large supply of it. At least a dozen men answering to our sketch could be found there any day. Beginning with Mr Pierpont Morgan and ending with the latest arrived of them all, Mr Harriman, they have won their spurs in gigantic ventures which in any other country would be reckoned foolhardy if not absolutely crazy. But crazy or not, they have so far had the atoning merit of success. These dozen men have through sheer

audacity and skill in forming financial combinations, captured all the principal railroad systems in the United States. They have divided up their spoil like friendly conquerors, and each has his own "sphere of influence." Parodying the diplomatic game played by the Great Powers in China, they have parcelled out the United States among themselves like railroad sultans. One has his foot on the North, another on the South; one casts his shoe over Pennsylvania, and another lays his yoke on California. One rounds up Texas, and another stretches his long arm across the Rockies to the Pacific. No single corner of the Union but has its railroad boss.

The late Mr Jay Gould at the zenith of his ambition hoped to get the whole of the railroads in the United States into his grasp. He had already secured all the telegraph lines, and a railroad monopoly would, he thought, round off his empire artistically. He did not live to complete his programme, and now a dozen successors are fighting over it. These combines, conversions, and contests for control are mere scrambles for the mantle of Mr Gould. Who is to come out on top at the finish it is impossible to say, but there cannot be a dozen Jay Goulds at the same time. Even the American continent would be too small for them. The present railroad situation in the United States is of necessity transitional. That it should continue long as it is is inconceivable. Financial and political considerations alike forbid its perpetuation. Both

from a railroading and a financial standpoint the whole movement has become dangerous—a danger to the State as well as to the roads and to the bosses themselves, including their bankers and underwriters.

## CHAPTER XVI.

CORPORATE FACTORS (*continued*).

## IV. CONTROLLING OR "SECURITIES" COMPANIES.

IN a former chapter we referred incidentally to "controlling companies" as a new development of American finance. In form they are not an absolute novelty. Security-holding companies have existed for years in connection with certain important railroads. The Pennsylvania Company will at once suggest itself as an instance. It is an offshoot of the Pennsylvania Railroad Company expressly organised to control the network of lines wholly or partially owned west of Pittsburg. The whole of the stock is in the treasury of the Pennsylvania Railroad, and is likely to remain there indefinitely. There has never been a market transaction in it, much less a gamble. It is a mere auxiliary to the parent company, and exists more for convenience of book-keeping than for any other purpose.

The Southern Pacific Company is a security-holder of another kind. It was one of Mr Huntington's creations, and served him as a



carpet bag to hold the dozen or more sets of securities covering the various sections of the Southern Pacific system. The latter has a separate charter for each state it passes through. The Southern Pacific proper is organised in California, with legally distinct sections in Arizona, New Mexico, Texas, and Louisiana. No stock of these individual roads is in public hands. All of it is in the treasury of the Southern Pacific Company, which has issued stock of its own in exchange. What buyers of so-called Southern Pacific shares receive is not, as they imagine, a direct security of the road itself; it is only the trust certificate of a securities company which holds the original stocks.

Very likely the Southern Pacific Company was one of the models Mr J. J. Hill had in his eye when he planned the Northern Securities Company that has been the occasion of so much discussion, legal and other. But there are many essential differences between the two. The Southern Pacific roads have been from the beginning parts of a well-planned whole. They have always been worked as a whole, and the public have never had anything to do with the separate organisations. The Northern Securities Company, on the other hand, may hold the stocks of any road; it may buy and sell them; it may control them and dictate their policy. It may become a bond of union between competing roads, and as a matter of fact it started with control

of the three strongest roads in the north-west—the Great Northern, Northern Pacific, and Chicago, Burlington, and Quincy. If the last was not an actual competitor for Pacific coast traffic, it had every prospect of becoming so when the often-rumoured extension to the coast was realised. Mr Hill's capture of the Chicago, Burlington, and Quincy headed it off from the Pacific, which it was starting for without doubt. Another year and it might have been too late to prevent the extension.

Mr Hill's countrymen, whether favourable or not to his policy as a whole, give him credit for courage and foresight in his Chicago, Burlington, and Quincy *coup*; Englishmen therefore can hardly do less. His prompt action, rash as it seemed, staved off dangerous complications. From the same point of view there is much to be said for the strong and resolute hold he has taken of his chief competitor, the Northern Pacific. How to maintain his hold in the teeth of state legislatures, apt to be roused to fury by the merest hint of railroad combination, was a serious problem. How also to render his scheme invulnerable in the law courts must have taxed the ingenuity of his legal advisers. The organisation of the Northern Securities Company, in order to be law-proof and lobby-proof, must therefore be a marvel of legal astuteness. But here we have to do only with its financial bearings, as regards which it has to be viewed not as an isolated case but as the centre of an already considerable group of imitators. It has

to be judged not by its own particular merits or demerits but by the exaggerations, in some cases almost caricatures, which have sprung from it.

The Rock Island scheme, for example, can hardly be taken seriously. During the craze for "capturing control" which seized all the Napoleons of finance after the Northern Pacific *coup*, the Rock Island fell into the hands of a Chicago clique who thought they could give Wall Street a lesson or two in its own game. Having bought stock enough to enable them to do as they pleased with the Rock Island, they made the following grandiose proposal. To withdraw the whole of its stock, which they had previously increased to the goodly sum of seventy-five million dollars, and to substitute for it the certificates of a securities company specially created for that end. The supply of certificates was of course to be ample, not to say lavish. For every 100 shares (\$10,000) of Rock Island stock turned in there was to be given in exchange—

\$10,000 in four per cent bonds.

7,500 in preferred stock.

10,000 in common stock.

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\$27,500 in all.

The nominal amount of stock was thus to be nearly trebled, but the clique did not expect it all to realise par just at once. Their valuation of the three new securities combined was 216 per cent, but as Rock Island stock was only 180 when the scheme began to be talked about, a possible ap-

#### IV. Controlling or Securities Companies. 201

preciation of 36 per cent presented itself on paper. The mere announcement of the move caused a rise in the old stock to over 200, which brought into view a prospect of the scheme having its full market effect before it was even launched. At 200 the Chicago clique, who had got in 60 or 70 points lower down, would have a fat profit in their grasp provided real buyers rose to the bait. Whether they realised it or not we can only guess from market indications. The probability is that they unloaded a good many shares during the popular excitement they cleverly worked up.

But, to do them justice, they did not take all this trouble for the mere sake of unloading, though that may have been an incidental feature in the programme. The ultimate object of the clique was to get back their money, or the larger part of it, and yet retain the road. If a majority of *bonâ fide* stockholders would kindly accept the new scrip to be manufactured for them, they would be giving away their voting power so far as the railroad was concerned, and the clique would get control without having to pay for it. In this respect the effect of the scheme would be to constitute them a permanent voting trust. That is undoubtedly a consideration with the authors of all securities companies. They found the voting trusts attached to most of the reorganisations of 1894-96 so handy that they regretted to part with them when their term expired. The securities companies promised to give them back their voting trusts in a stronger

and more permanent form. Being young and loose-jointed concerns, with their stock all scattered about, they will be much easier to manage than an old-fashioned crowd of railroad stockholders.

They will have their drawbacks, of course, and their career is not to be by any means a smooth one. They are not to be favourites either of the law or of the legislature. Pending suits may be decided against them, in which case it is understood that they will remodel themselves and go on remodelling themselves until they find an unassailable legal position. This might, in fact, be the most favourable issue for them. If the pending suits were to be decided in their favour Congress would be at once urged to some special legislation against them. The state legislatures would also be set in motion to curb them, and when they begin there is no saying where they may end.

In the southern states especially there will be a violent clamour against any form of railroad monopoly. Their constitutions are directly opposed to it, and more than one previous attempt has had to be abandoned when the state authorities put their veto on it. The prospect, therefore, for a Southern Securities Company is exceptionally dubious. It will at once find itself in collision with the same clause in the constitution of Kentucky which proved an impossible barrier to a much smaller combine of ten years ago—the attempted purchase of Mr Huntington's Chesapeake

and Ohio South-Western Securities by the Louisville and Nashville Company. That deal fell through after all the arrangements for it had been perfected. The state of Georgia may also have something to say to a grand southern combine. Its constitution not only forbids such combinations, but places them outside of the law altogether. Article iv. declares that "the general assembly of this state shall have no power to authorise any corporation to buy shares, or stock, in any other corporation in this state, or elsewhere, or to make any contract, or agreement whatever, with any such corporation, which may have the effect, or be intended to have the effect, to defeat or lessen competition in their respective business, or to encourage monopoly ; and all such contracts and agreements shall be illegal and void."

The Georgia law has perhaps not been so scrupulously enforced as that of Kentucky, but it is still there, and all state legislatures of to-day take these things more seriously than their predecessors of ten or fifteen years ago may have done. A bitter and prolonged fight over the securities companies is as inevitable as the larger fight over the trusts. In fact, it is likely to become an important branch of the anti-trust campaign. How it may end not even the astutest politician or financier can foresee. This much is certain, that until it is settled it will be a very disturbing factor in the stock markets. So much so that its wisdom as a device for unloading

high-priced stocks may for that very reason be doubted. It might have been better for the overloaded cliques to liquidate gradually, even at lower levels. The market would then have steadied itself, and stocks remaining in their familiar form would still have possessed the confidence of the public. But now, should the securities companies establish themselves, the familiar stocks will have disappeared and the public will be slow to believe in the equivocal certificates by which they will be replaced.

There will be a very difficult period of transition to pass through while the legal contest is proceeding. Many new risks, which might have been avoided, will intrude themselves into the stock market. There will be uncertainty as to the endurance of the cliques who are making the fight for the new combinations; uncertainty as to the effect of the combinations, should they be legalised; uncertainty as to their practical operation, and uncertainty as to how soon they may in their turn be superseded by some fresh manipulation. The restless spirit which these devices indicate among the existing leaders of the stock market is already exciting alarm among *bonâ fide* holders. It is having a still worse influence on American securities in Europe. Dealers in London and on the Continent see in it a settled design of the Wall Street leaders to hold on to the best of their railroad stocks now they have got most of them home again, and to furnish Europe with



a brand-new supply of gambling counters named after certain railroads, but carrying no control over them.

It would take a volume of itself to describe even briefly the various steps by which the present pass has been reached. Their character may be gathered from a few specimens of the devices which have been most frequently employed for "securing control." These were—

First, the so-called "community of interest" plan, under which a powerful road like the Pennsylvania bought large blocks of stock in its weaker neighbours the Baltimore and Ohio, Norfolk and Western, Chesapeake and Ohio, and placed its nominees on their respective boards. By doing so it is now able to dictate their policy, choke off their opposition, and fix rates to its own satisfaction.

Second, the "Burlington deal," in which a system of over eight thousand miles, traversing eleven states, was bought, stock, lock, and barrel, by two men—Messrs J. J. Hill and Pierpont Morgan. They forthwith leased it to their own roads—the Great Northern and Northern Pacific—for a guaranteed rental equal to 8 per cent on its common stock. At a stroke a powerful rival was converted into a powerless vassal. If left alone the Chicago, Burlington, and Quincy might have struck out for the Pacific and made a new trans-continental road. So formidable a competitor was never before so suddenly and completely chawed up. The Chicago,

Burlington, and Quincy simply ceased to exist as an independent system.

Third, the "Northern Pacific deal," in which the control of a shaky road was fought for by two powerful neighbours—the Great Northern and Union Pacific.

Fourth, the "Northern Securities deal," by which the two powerful neighbours aforesaid, after checking each other, agreed to pool their Northern Pacific securities and resell them to the public under a new name. In place of their original stocks the public got trust certificates without any voting power or right of interference with the road.

Fifth, the "Southern Pacific deal," which by the simple passing of a cheque changed the destiny of the largest railroad system on the Pacific coast. About a third of the capital of the Southern Pacific company was transferred in a block to the controllers of the Union Pacific, and, like the Burlington, it became a vassal of its former rival. In this case a third road, the Oregon Short Line—a tributary of the Union Pacific—had to be called in to assist in the financing of the deal. The Oregon Short Line Company saddled itself with a mortgage and printed a quantity of bonds, which it turned over to the Union Pacific. The latter issued them and used the money to pay for its Southern Pacific purchases. If the Union Pacific were to lose control of the Oregon Short Line its hold on the Southern Pacific would also be in danger.

Sixth, "the Rock Island conversion scheme," the peculiarity of which is that it is not intended to secure for the Rock Island control of another road but to invest the Rock Island directors with irresponsible power over their own road. In Wall street jargon, a "holding" company has been formed to take in all the existing Rock Island stock and give the owners in exchange for it certificates of the dummy company—\$100 in bonds, \$75 in preferred, and \$100 in common for every \$100 of Rock Island. This is the most cynical scheme yet launched, for it makes no pretence of harmonising other interests or of buying off competition. Its admitted purpose is to fix the present directors in their seats and to prevent the stockholders voting them out even when an unquestionable majority is against them.

Seventh, the "Louisville and Nashville deal," which was intended to be a replica of the Northern Securities scheme. Owing to legal difficulties, however, the original scheme had to be abandoned and an outside road, the Atlantic Coast line, had to be called in "to carry the corpse."

Non-financial readers might find a detailed criticism of these manœuvres rather tedious reading. We limit ourselves therefore to a few general considerations applicable to them as a whole. The most serious reflection to be made upon them is that they are almost all the offspring of stock-market manipulation. They did

not originate with the public or with *bonâ fide* shareholders. They are not in the interest of the public or of *bonâ fide* shareholders. Their more or less disguised object is to concentrate the control of huge railroad properties in the hands of a few men who would be virtually irresponsible and irremovable. There may be a good deal to say for stability of administration, but this is paying much too heavy a price for it. There may also be some excuse for American railroad financiers taking precautions against the traps they are accustomed to set for each other.

The nominal stockholders—that is, those named on the certificates—are seldom the real holders. They are often New York or London firms who simply deal in the shares. They may have got on the register years ago, and subsequent purchasers of the shares finding it inconvenient and expensive to transfer into their own names may have retained the original certificates with blank transfers on the back. In return for the trouble of passing on dividends and accruing rights to the actual owners, the nominal owners have the privilege of voting on the stock, which may often be important. Before now railroad boards have been upset and the whole administration of a road changed by the votes of dummy holders—that is, of persons remaining on the register for stock which no longer belonged to them. But, as a rule, the dummy holders were easier to deal with than the real owners would have been.

#### IV. Controlling or Securities Companies. 209

Now, however, since the Americans themselves began to take more interest in railroad securities, transfers are becoming more numerous, and the proportion of actual owners on the register increases.

The latter change involves a new difficulty for the railroad financiers. Thousands of *bonâ fide* holders could not be shepherded as easily as a few dozens of friendly firms able to vote on blocks of other people's shares. One of the objects of the "holding" companies, *alias* "security" companies, appears to have been to neutralise the risk of wild voters running amuck at the yearly meetings. For their own good and the convenience of their directors it was resolved to try and relieve them of their votes. In exchange for their stock, which it was assumed they could not be trusted with, they were offered a *mélange* of bonds, preferred and common shares, in a dummy company warranted perfectly harmless to the management of the road. It is a grave question if they should place themselves in such a back-door position. Just now they are owners of their property, and can have it properly managed in their own interest by giving the necessary personal attention to it. But as mere certificate-holders in a dummy trust they would have no direct ownership or control or power of self-defence.

A second objection to the new-fangled baby-holding company is that it will withdraw from the market all the best stocks it now has to trade

in—namely, the preferred and common stocks of well-known roads familiar to the public for years past and tried by the fire of repeated reorganisations. Old bottles of proved soundness are to be called in, and new bottles, distinguished more for size and number than for strength, are to be issued in their place. The exchange, if allowed to proceed to the extent now talked of, will permanently lower the whole range of American railroad securities. The old stocks have gone through many vicissitudes and met with a good deal of abuse in their day, but their legal validity at least could generally be trusted. The substitutes now being offered for them will not even be legally safe. They may be watered, squeezed, or turned inside out at the whim of the latest arrived financier or to furnish a pretext for a Wall street campaign.

A third objection to these deals is for business men. Unsound as they appear to be in principle and suspicious in origin, the "holding" companies might not be so harmful if the stocks with which they are being stuffed had been put into them at honest values. But it is well known how recklessly most of these have been bought and what giddy prices have been paid for them. Since the "community of interest" boom began at the second McKinley election (1900) every Wall Street stock, old and new, has been capitalised on the assumption that all its earnings were a perpetual annuity, and that the annuity was to

be doubted every few years. The opposite possibility of a check to the boom, to say nothing of a reaction, has been utterly scouted. But the wildest dreams of the most sanguine capitalisers have not proved the limit of "buying for control." Experienced railroad men have bid against each other for stocks without regard either to value or earnings. To prove how completely they had given up cutting each other's throats over rates, they fought like demons in Wall Street for "majority votes." Then having made up their little differences, all the majority votes were put in a bag and the bag was registered in New Jersey as a "securities" company! At all events the buying might have been done a little more wisely.

If "controlling" companies should be imposed on all the great railroad systems of the United States, and their certificates be forced into general circulation, the railroads will be reduced to the level of the iron and steel industry in the hands of the United States Steel Trust. Control by shareholders, never very effective at any time, will utterly vanish. There will be just so much publicity as suits the controllers of the "securities" companies. The market will never know what surprise is to be sprung on it next. For how can it be expected that the appetite for ten-million-dollar fees should die out among the champion reorganisers of the day, whoever they may be?



## CHAPTER XVII.

CORPORATE FACTORS (*continued*).

## V. WALL STREET.

IF an English reader were asked what influence the Stock Exchange and the Baltic have on the general business of the country he might be hard put to it for an answer. If an American reader were asked a similar question as to the influence of Wall Street and the Produce Exchange he would have no corresponding difficulty. Both these institutions stand in very close relationship to the staple markets of the United States. They are among the recognised price-makers, and sometimes they are more effective than all the other price-makers together. They furnish the speculative element, which sometimes intensifies, sometimes neutralises, the natural tendency of a market. When, for instance, a short crop is anticipated, speculation discounts it beforehand. By buying in advance it puts up the price sooner than it might have risen if left to its own course. When there is promise of a heavy crop speculation discounts that by selling in advance. Both operations

may be quite legitimate and have a beneficial effect. The rise and the fall may be equally moderated by the action of the speculator. They may be spread over longer periods, and in that way their ultimate danger may be lessened.

The trader generally does not recognise the speculator as a friend and ally. He more frequently treats him as a mischievous interloper. He regards the speculator as a creator of fresh risks rather than as a reinsurer of risks already existing. But eliminate the speculator, and the grower of produce, the dealer, and the transporter will find that they have lost their means of re-insurance. They must now bear all their risks themselves. If a country like the United States, raising enormous quantities of agricultural, mining, and other produce which have far to travel to a market and many accidents to encounter by the way, were to restrict itself severely to the ordinary course of trade, it would often be caught in disastrous fluctuations. In such circumstances the farmer would have to choose between selling his crop early—perhaps at the lowest price of the season—and holding it for a better price, which he perhaps might not get after all. No trader would buy it from him except at a price which would leave ample margin for future contingencies.

Thus the farmer, in deciding whether he shall hold or sell early, incurs the risk of a wrong decision; in other words, he speculates. The trader who takes part of the risk off the shoulders

of the farmer also speculates. Between them and the professional speculator there is no essential difference. It is only a question of degree in any case. If a distinction had to be drawn, it might be said that the farmer and the grain merchant only undertake risks incidental to their business while the professional speculator goes out of his way for them and undertakes them voluntarily. That may be, but the vital point is, that there must be a large amount of risk in the marketing of such produce, and that some one must bear it. The professional speculator may argue that better many should share it than that one should bear it alone.

Under the present ~~com~~mercial *régime*, wherever there are business risks to face there will be speculation as well as so-called legitimate trade. Moreover, the dividing line between the two will never be easy to draw anywhere, and most difficult of all in the United States, where risks are great in proportion to the enormous amounts that have to be handled. Speculation that simply spreads these heavy risks over a larger area requires little if any apology. On the contrary, it may be claimed that the better it is organised and controlled the more justifiable it will be. The Americans have, after long and thorough discussion, concluded that a certain amount of speculation is inseparable from business of any kind in stocks or staple produce. Instead, therefore, of making a futile attempt as the German Government did to suppress it, they allowed it to organise itself on the safest attainable

lines. The Americans have consequently the greatest freedom of speculation and more abundant facilities for it than any other people. They have created the largest number of speculative methods and devices. "Futures," "options," "straddles," and every known kind of contingent dealing are familiar to them.

These facts are worth mentioning, not for their own sakes but in order to show that in the case of the Americans we are not dealing with a people who are squeamish or fastidious in speculative matters. An American speculator will be allowed both by law and public opinion to go farther—considerably farther—than would be tolerated anywhere else. Therefore whatever oversteps the American code of speculative ethics is likely to be rather rank. Here we shall judge the Americans by their own code, and not by ours or by that of any European community. Transactions that would be penal in Berlin form a large part of the day's work in New York or Chicago; and things that would scandalise London are mere passing sensations in Wall Street.

These rather elastic principles of Wall Street and the Produce Exchange have another noteworthy peculiarity—they are steadily growing more elastic. The question before us now is, what effect this laxity may be expected to have on the industrial future of the United States. It may be best answered, not by elaborate descriptions of Wall Street and other centres of speculation, but

by a few examples of the length to which speculative plunging is now carried. It would seem as if all the most dangerous precedents of the past were being revived for the purpose of out-Heroding them. In the present phenomenal outburst of American prosperity there is much that foreigners can cordially admire. Threatening as it may be to their own interests, they can respect the splendid business abilities associated with it. But there are some phases of the boom which cannot be regarded either by Americans or foreigners without grave alarm.

The colossal gambles which follow each other so rapidly in Wall Street and in the "grain-pit" must shake confidence in the whole commercial system which permits them. Whether they be inseparable from it or not, they threaten serious disaster to it sooner or later. They are even more ominous than the trusts, for the latter may plead that union is strength, but colossal gambles can end only in panics. The gamblers themselves are perfectly aware of that, and it is amusing to see how jealously they watch each other when any alarm of a perilous "deal" is afloat. Formerly the greatest exploit that a Wall Street filibuster could achieve was a "corner" of some kind. It was the crown of his ambition, like the *rôle* of Hamlet to a budding tragedian. But now the bare mention of a corner sends a cold shiver through Wall Street. It begets terrible visions of a house of cards tumbling about one's ears. So terrifying is the

prospect it conjures up that the banks, as soon as they hear of one being attempted, launch a vigorous remonstrance at the cornerers. This actually occurred not long ago—in fact, about the beginning of 1902. The episode was afterwards described by the actor-in-chief, the notorious Mr John Gates. To an interviewer he made the following ingenuous confession:—

On the Louisville we had the opinions of the best experts and auditors in the country that it was worth more per share than the Illinois Central. Before we started we knew there was \$25,000,000 quick cash assets in the treasury; but the public did not know that. We started knowing the actual intrinsic value of the company and its exact physical condition, and we had the reports of the auditors on its financial condition.

When we obtained 306,000 shares—the amount we started out to get—there was a short interest of 150,000 shares, of which 100,000 shares were the foreign short interest and 50,000 were stock that August Belmont had sold under a resolution of the board authorising its sale. These 50,000 shares were not good delivery for thirty days, and if we had called the stock and insisted upon the specific performance of the contracts, as we had every right to do, we could have caused a panic greater than the May panic.

The proposition was made to me, by a thoroughly responsible man financially, that if I would call the stock and insist upon delivery he would sell 500,000 shares of the stock and give me half the profits for doing it. Morgan's people sent to my hotel and awakened me at 1.30 in the morning, and stated that at a meeting of bankers it had been determined that we were the owners of the Louisville, and wanted to know

what we proposed to do, stating that it meant a panic probably greater than the May panic. I told them the proposition that had been made to me; but said that under no circumstances would we insist upon specific performance of the deliveries of Louisville.

In any other country than the United States Mr Gates and his confederates would very probably have had to answer a charge of criminal conspiracy. But never a suspicion or a fear of that kind seems to have entered their minds. They laid their plot most deliberately and carried it out step by step—an expert examination of the Louisville Company's books; cautious buying of over 300,000 shares, which must have taken some weeks; an arrangement to "call" the shares suddenly—in other words, to insist on immediate delivery at a critical moment; and, by way of grand finale, an agreement with another confederate to supply the frightened bears with as many shares as could be worked off on them during the bear panic. Apparently it was intended to sell half a million shares against the three hundred thousand held, so that the corner would have ended in the cornerers being themselves short of two hundred thousand shares.

Wall Street would probably say that it was a Napoleonic scheme, and if it had succeeded the consequent panic would have been almost forgiven for the sake of the skill and daring of its authors. But the New York banks were not in a position



to let Mr John Gates and his fireworks have their own way. They were thoroughly alarmed, and to add to their terror Mr Pierpont Morgan, the *deus ex machinâ* of Wall Street, was away in Europe. In great haste the Atlantic cables were set to work, and a message came back for Mr Gates which he dare not defy. Without Mr Pierpont Morgan and the Morgan banks Mr John Gates would be a very small-beer Napoleon of finance. He read aright the Olympian message and climbed down, but not unconditionally. Mr Morgan and the banks had to pledge themselves to protect the three hundred thousand shares which Mr Gates would be left with if the bear squeeze did not come off. The sequel has been recorded in a previous chapter.

The Gates-Louisville episode of 1902 is so far the high-water mark of Napoleonic stock-gambling. We have presented it thus early in our sketch of Wall Street for that reason. It represents in a striking and graphic way how far the stock-gamblers of the period are prepared to go in the manipulation of markets—not stock markets alone, but grain, cotton, tobacco, iron, steel, coal, or any other staple with a “pull” in it, according to Wall Street slang. Conversely it shows how much these markets have all the time to fear from the most daring and reckless manipulators. We may be asked how such things can be done in New York and not elsewhere. That is a question on which a great deal hangs. The pos-

sibility of such things being done in New York, not once or now and then, but almost any day in the week, seriously compromises the whole industrial system of the United States. Unfortunately the champion stock-gamblers are also the industrial kings. This same Mr Gates was a leading promoter of the United States Steel Corporation. He has been an active lieutenant of Mr Morgan in other big deals. He is understood to control quite a number of railroads. And his latest exploit, the corner in July corn, proved him to be also a man of some importance in the grain-market.

The big deals which are now almost daily events in Wall Street are not merely alarming in themselves—they are much more so for the character of the men engaged in them. These men are, sad to say, not ordinary gamblers. They are also financiers of genius and commanding ability. As financiers they are at the head of their profession, not in New York only but in the world. A group of them, not exceeding a score perhaps, hold all the principal banks in New York and Chicago in the hollow of their hand; they control all the chief railroad systems; they are nearly if not quite as omnipotent in politics as in finance. Only two checks on them can be said to exist. One is President Roosevelt and the other is the great labour unions. Morganeers—trade unionists—and single-handed President: that is how the triangular duel stands. It is a

far more portentous struggle than that of McKinleyism and Bryanism, which shook the country to its centre. It will be a more critical one for the millionaires. In the McKinley campaign they had the working men to a large extent on their side, but in the next struggle every trades union will be arrayed against them. Every labour war, great or small, now going on will leave its mark on the succeeding elections.

But what can be wrong with Wall Street when a score of men, self-made all of them, can in a few years raise themselves to such a pinnacle of wealth and power as to be able to do not only anything they please, but when and how they please? All ordinary laws and principles of finance have been swept away before them. They claim the right to convert stock into bonds and bonds into stock at their own sweet will or for their own convenience. They capitalise and re-capitalise the creatures of their own creation as the whim seizes them. They split or splice securities, organise or disorganise them, bull or bear them, talk them up or talk them down "to suit their books," as the saying is. And these things they do not by hundreds or thousands but by millions.

In any case Wall Street transactions would be large compared with those of any European stock-market because it has so much more to deal in. But that only renders it the more surprising that a small group of men should have got control

of markets so extensive that the very idea of manipulating them should seem *prima facie* absurd. The stock-market, which from its huge size and the great variety of securities it deals in might have been thought safest from faking, has been captured hand and foot by a band of financial fakirs. There must be something in Wall Street itself or in the financial system it represents to have made such a paradox possible. This is the problem which of all others in the economic life of the United States most urgently demands solution. It cannot be pretended that such a state of affairs is safe or healthy for the commonwealth. It cannot be expected to continue long without provoking resistance and possible violence. Hence the duty that is laid on serious-minded Americans to find out how this gambling oligarchy has arisen, and how in the public interest it is to be checked.

The Wall Street oligarchy has no counterpart in Europe, and its existence here is inconceivable. Stock-dealing is active enough in all conscience in every European capital, but there is nothing Brobdingnagian about it. There may be firms which turn over a few thousand shares per day more than their neighbours, but the very largest turnover in London, Paris, or Berlin would look small in New York. European dealings are further distinguished by being mainly personal. There may be some large operators who work together or on the same speculative tack ; there are foreign banks

who act for large clienteles; and there may be casual combinations within the stock-markets themselves. These exceptions do not, however, materially affect the rule that speculation in Europe is mainly personal. Another of its peculiarities is that it is greatly subdivided among different markets. In the London Stock Exchange, for example, professional dealers are supposed to restrict themselves to one group of securities, be it consols, home railways, Americans, or Kafirs. The area of individual speculation is consequently limited. A man with a hundred thousand pounds of stock open is a somebody, whereas in Wall Street he would be nobody.

The great distinction between the old and the new worlds from a speculative point of view is that European stock-markets have no so-called "leaders." With them the crowd is everything, and it sways hither and thither under a multitude of ever-changing impulses. There is no Keene or Harriman to take it in hand and work it up to reckless enthusiasm in favour of a particular stock. Neither is there a Mr Gates lying low and buying hard till he gets unsuspecting sellers into a trap and shuts it down on them. It is very doubtful if either the Morgan or the Gates *rôle* could be played with any success in Europe. Past experience has made the British investor too sceptical about American booms suddenly sprung on him. Even if he were easier caught the machinery to catch him does not exist here to a twentieth

part of the extent that it does in the United States. Neither is it worked with a twentieth part of the energy that American stockbrokers throw into it.

Not so many years ago speculation in stocks was confined to New York and two or three of the principal cities in the interior. Chicago was of course the headquarters of speculation in grain, but its Stock Exchange was of very little account. In the same way there was very little betting on races. The average American had enough to do attending to his own business, and he seldom went farther afield. But an enormous expansion of all kinds of gambling is now visible. The Western Union Telegraph Company supplies stock quotations and racing news at a fixed rate per annum to all and sundry. Every hotel and beer-saloon has its ticker. Every town of fifteen or twenty thousand inhabitants has a Stock Exchange or a Board of Trade. Every provincial broker who would be thought anything of has his special wires from Wall Street and issues his daily bulletin to clients. From Boston to San Francisco nearly everybody talks more or less of stocks, options, bulges, and corners. The huge advances which all leading stocks have made since the reorganisations of 1895-96 have thrown a glamour over the whole country. People who never touched stocks before now regard them as a lottery in which big prizes are to be drawn. Again and again they try their luck, and they

have just enough success to keep up their interest in the game.

There is thus a plentiful supply of inflammable material for the Wall Street leaders to operate on. A hint has only to be dropped that the Morgan brokers have been large buyers of Southern, or that Mr Keene speaks well of Union Pacific prospects, or that Mr Gates has formed a bull pool in Atchison, and it will be flashed across the continent over every tape-machine and into the columns of every newspaper. Then the bull fever breaks out again, and orders to buy are flashed back to Wall Street from all over the country. From Montreal to El Paso, and from Philadelphia to Seattle, the grand army of punters answer to the signal. A leader can do almost anything with such a following. He can run up prices till he gets tired of raking in profits. He can unload shares by tens of thousands in sure and perfect hope that he will be able to get them back again when he wants them, and at his own price. He can lure them on with "privileges," new issues, combinations, rumours of increased dividends, and all the rainbow visions that fascinate the gambler. If now and then he takes out the peg which holds up their fool's paradise and lets them drop into the cellar, the worst he has to fear is that they may storm and swear a bit. But he knows they are very forgiving, and at the first offer of a new plum they will all swarm round him again.



The only British parallel to a Wall Street leader is a popular company promoter. But he is a mere rocket in comparison. No sooner is he up sky-high than down he comes like a stick with a crowd of furious dupes on top of him. The same rocket seldom goes up a second time, but a Wall Street juggler can play the game over and over again *ad libitum*. Mr Gates himself has been at it for at least ten years. Our company-promoting rockets have other limitations which do not trouble their American prototypes. They have to be content with what they can work off on the public. Our banks and finance houses are, as a rule, closed to them or opened only sparingly. But the Wall Street juggler has banks and trust companies galore at his service as well as the public pocket.

Herein is the greatest peril of the American situation. A private speculator may lose his money and be done with it, but when a bank or a trust company loses money it may be the beginning of far-reaching trouble. After what has been said in defence of intelligent speculation within safe and moderate bounds, it will not be supposed that we are purists in this matter. But in the name of sound honest finance a protest has to be raised against financial institutions which have the interests of seventy-eight millions of people to protect mixing themselves up, however slightly, with Wall Street plungers of the Gates type. The Gates corner in Louisville and Nashville stock could never have been thought of if two or three

considerable banks had not undertaken to back it. Without them nothing Mr Gates or his confederates could have done would have mattered much to any one but themselves. But when important banks will stoop to such operations it is impossible to say what they may not do. They forget entirely their proper duties and responsibilities when they thus lend themselves to gigantic schemes of stock-jobbing which, if carried out as planned, might have wrecked Wall Street and half of the New York banks at the same time.

## CHAPTER XVIII.

CORPORATE FACTORS—(*continued*).

## VI. "THE GRAIN-PIT."

AMERICAN Produce Exchanges are more speculative than even Wall Street, and they are no less necessary to the business of the country. It would be easy to mention a number of very important functions they have to perform, and on the other hand equally easy to draw up a long catalogue of abuses which may be charged against them. Briefly put, their *raison d'être*, like that of the stock-market, is to distribute the risks inseparable from modern industry and commerce. For example, when pioneer settlers are pushing into a new country they have to contend with many special difficulties and stand in need of special facilities from banks, railroads, and other local institutions. Few of them will have barns to store their crops in. As a rule they have to take them immediately they are harvested to the nearest railroad station. Here there is probably an elevator belonging to the railroad company and run on its behalf. The company, through its local grain agent, buys the

wheat or corn and pays for it. Possibly it cannot be sent east at once, and in order to minimise the risk of holding it for weeks or months it is sold for future delivery. Formerly that was a very usual practice in the north-west, but it is no longer indispensable.

As a second example, there is the owner of a huge flour-mill turning out several thousand barrels a-day. In order to ensure a constant supply of wheat for his mill he must make heavy purchases in advance. If he were to enter at the opening of the season into unprotected contracts for all the wheat he expected to need, the risk would be tremendous for both buyer and seller. They have to face the danger of market movements so violent as to be ruinous. Both, therefore, welcome a means of hedging. The miller can at any Board of Trade or Produce Exchange in his neighbourhood sell "futures." He can protect himself against a violent slump in wheat or corn by a prospective sale for September, October, December, January, or February delivery—any month in the grain year, in fact. The seller on his side can protect himself against a hitch in the fulfilment of his contract by buying for October, December, January, or any other month.

A third example of the *bonâ fide* usefulness of "futures" is to be seen in dealing for foreign markets. The dealer may in course of his regular business have to enter into contracts for millions of bushels. To carry such a risk unprotected

would be madness, especially when it can be insured, as it were, by post-dated sales or purchases. In short, the scope for legitimate dealing in future wheat or corn is unlimited. At the same time it opens up still wider scope for speculation. A large portion of the grain-trading in Chicago and New York is speculative. Three-fourths speculative to one-fourth regular business might be about the proportions of the two. Again, the speculative section of the market has many degrees. It may extend from punting for a few dollars up to a corner engineered by millionaires. But, large or small, all have this feature in common—they are little else than betting on the weather, with the help of a State-aided Weather Bureau. Even the Department of Agriculture has to become an indirect accomplice of the grain speculators.

Both the Department of Agriculture and the Weather Bureau conduct for the public benefit a highly organised statistical service which, without their intending it or being able to prevent it, tends to foster this kind of gambling. It is not their fault that the gambler can make as good or even better use of their information than the legitimate trader. Anyhow, the result is that an immense volume of business, speculative and otherwise, is based on the weather and crop reports issued periodically by the Government. The influence of these reports extends even beyond the grain trade, and has at times a powerful effect on the stock-markets. From the moment that the seed goes

into the ground the growing crops become a subject of lively interest on every Stock and Produce Exchange in the United States. Day by day their prospects are discounted as an item in the current year's business, the traffics of the railroads, and the general economic situation. As they approach the critical stage the probable yield of the various crops is appraised by a host of expert statisticians, and every slight fluctuation in their condition begets a sympathetic movement in grain and stocks. In effect they are revalued day by day, and grain and stock operators readjust their calculations to every change.

To our British phlegm that may seem a very gratuitous and unprofitable kind of worry, but the Americans love it. Discounting the harvest several months in advance is one of their most favourite methods of quick money-making. Between them the Government statisticians and the "grain-pit" have reduced it to a science. The crops are valued on a system of percentages which looks very exact, but is capable of great discrepancies. On the wheat crop of 1901 the Department of Agriculture and the Census Department differed about a hundred million bushels on wheat alone. The standard represented in the official tables by 100 is obtained by averaging the actual harvests of the previous five years. Last year (1902) 100 meant 16·9 bushels per acre of winter wheat, 17·7 bushels of spring wheat, 34·7 bushels of oats, 15·7 bushels of rye, and 31 bushels of corn. If on a given date

"condition" was reported at 90, that implied a probable crop one-tenth smaller than the average of the preceding five years. If "condition" were 80, that would be one-fifth smaller than the average of the preceding five years, and so on.

The Department of Agriculture very prudently does not go beyond percentages, but these, as soon as published, are laid hold of by another set of statisticians who work out from them the estimated yields. Taking the average of each crop, they multiply it by the number of bushels per acre which the percentage of "condition" indicates. On this branch of the crop estimates the chief authority is Mr J. C. Brown, the statistician of the New York Produce Exchange. He gives the finishing touch to them, and the "grain-pit" has so much faith in him that immediately his figures appear operators proceed to trade on them. If they foreshadow a light crop—that is, in the slang of Wall Street, "a bull point"—the bulls redouble their buying. If the forecast be for a heavy crop, the opposite effect happens, and the bears take their turn. Technically speaking, they "sell the market down." Thus the "grain-pit" ebbs and flows until the last grain report of the season has appeared.

There are, of course, a good many other influences coming into play. Manipulation is in season all the year round. It is generally spasmodic and short-lived, but seldom a year passes without an attempt at a grand corner. It almost invariably



comes to grief, but next year is sure to produce a new candidate for the questionable distinction. The latest was Mr John W. Gates of Steel Trust fame. During the summer of 1902 he had several very big railroad deals pending, and, apparently to amuse himself while they were maturing, he tried a "squeeze" in corn. It may be worth describing, not merely as the latest novelty of its kind, but for various peculiar features it presented. Mr Gates is an all-round plunger to whom nothing comes amiss from poker to a corner in pork or corn. On this occasion he selected "July" corn as the subject of his experiment.

When he began buying is unknown, but it may have been early in the year, very probably soon after he unloaded his Louisville and Nashville stock on Mr Pierpont Morgan. How much he bought is also a secret, but the general estimate in the "grain-pit" was twenty million bushels. Mr Gates and his associates could not possibly have taken up and paid for twenty million bushels of corn or anything like it. They calculated on the sellers not being able to deliver. But, like the youthful plunger Mr Leiter, they had made one or two errors in their calculations. No doubt they were all right as to the 1901 crop having been five hundred million bushels short, and as to the consumption being much in excess of the current supply. They may have been right, too, in their belief that the visible stocks in Chicago and at other reporting points were unusually small.

But the invisible stocks — namely, corn in the hands of farmers and elsewhere outside of reporting centres—seem to have proved too much for them.

It was a race against time to get the invisible stocks forward during July, and if the duel had been fought out to the bitter end the whole twenty million bushels could hardly have been forthcoming. Still the "shorts" did wonderfully well considering. Early in the month they were bringing into Chicago 500 carloads a-day, and by the middle of the month they had increased the number to a thousand a-day. Very soon Mr Gates and his friends had had to pay for three million bushels of corn. But all the time they were putting on a bold front in the "grain-pit" and successfully bluffing the bears. The price of corn ran up from 60 cents to 90 cents per bushel, and predictions of dollar corn were being joyfully made in the pit. But farmers and other holders did not wait for the dollar. From 70 cents upwards they sent in every bushel they could muster, and Mr Gates saw that if he was not to get his full twenty million bushels he would get an inconveniently large portion of it. So he called a halt and came to terms with the shorts.

How the two sets of plungers arranged their "draw" is of no public interest, still less which of them had the best of it. But it is of public importance that immediately the end of the corner was announced corn dropped back from 80 cents

to about 65 cents a bushel. A rise of 25 cents per bushel, engineered in a few weeks, ended appropriately in a fall of 15 cents in as many hours. For the farmers who were sharp enough to sell on the rise the corner was a stroke of luck, but for traders who were frightened into buying on the rise by the alarm of an impending corner it was the reverse. To the legitimate grain-market it was a demoralising evil, and for American finance it is an obvious misfortune that men like Mr Gates, capable of imperilling a whole community for the sake of a few million dollars profit, should be recognised financial leaders. Twice within a year he brought the country to the brink of a panic—first by his Louisville rig and next by his corn corner. On both occasions he had to be called off at the last moment in order to avert a catastrophe, but he will often be heard of again at the same game.

The more respect one feels for institutions like the Stock and Produce Exchanges of the United States in their legitimate sphere, the more he will regret the flagrant abuse that is frequently made of the facilities they offer for useful and even indispensable classes of business. The more liberal his views as to American methods of speculation in grain and stocks, the stronger will be his criticism of operations which go far beyond the widest limit of financial ethics. Markets liable to be upset by "squeezes" and corners of the Gates type are not in a fair way to be accepted as international models.

## CHAPTER XIX.

## NATIONAL FACTORS.

## CONGRESS.

IN Europe it is a comparatively modern idea that Governments owe any duty to national commerce. Till a very recent period their relations to commerce were almost exclusively of an obstructive character. Even after British trade had become world-wide in its scope, it received very little recognition from the State. So far from desiring any, the leaders of the Manchester school of sixty years ago prided themselves on their self-dependence. They asked nothing better from the State than to be left alone. In the subsequent reaction from ultra-Cobdenism these and many other extreme opinions have been considerably modified. To-day there is no important section of the commercial class who maintain all the anti-State prejudices of the free-trade epoch. The theoretical objection to State interference in matters of trade has greatly declined. If co-operation between the two be still very imperfect and less fertile of useful results than it ought to be, that is due to no hostile

principle, but only to practical difficulties. A British Ministry has never yet existed which could enter thoroughly into the views and feelings of the trading classes, but the latter would be only too glad to welcome one.

In this respect the trading classes of the United States are the antipodes of the British. They have never indulged in any false dignity in their relations with the State. If the State could do anything for them, they have accepted the service not as a favour but as their due. No ultra-free-trade prejudice has kept them aloof either from the Government or the Legislature. It has been frankly recognised on both sides that Governments exist for the sake of the governed. In all their personal interests and avocations the people have taken it for granted that the public authorities were there to be made use of. As nine-tenths of the American people live by commerce or industry, they expect these to be also the chief concern of their rulers. And invariably they are. In the United States every public man—President, Ministers, Senators, Representatives, Ambassadors, Consuls, and so on down to local postmasters—has the commercial instinct. No matter what his professional training may have been,—legal, medical, or scientific,—he is sure to be a business man more or less. He fully appreciates the fact that all his fellow-citizens are men of business first and politicians afterwards. By common consent politics is subordinated to business, and ranks as one of its many satellites.

In the States not only the social but the legal and political prestige of commerce is greater than in any other country. It is honoured with express mention in the constitution, which specifies among the powers of Congress "to regulate commerce with foreign nations, and among the several states, and with the Indian tribes." It also enumerates among the inviolable rights of the people that "no preference shall be given by any regulation of commerce or revenue to the ports of one state over those of another." It was evidently this provision, perfectly just and rational in its proper connection, which the doctrinaires of the early Victorian period twisted into an absurd prohibition of differential duties at any British port, home or colonial. In practice it was pushed to the *reductio ad absurdum* of not allowing an Australian or South African colony to charge a smaller import duty on the products of its next-door neighbour than on a similar article from France or Germany. Now that the Australian colonies have, by federation, put themselves on a level with the states of the Union, it is possible for them to have a federal tariff. But in their infancy the Greys and Molesworths could not always force them into the American mould without risk of damage.

In the framing of their constitution the Americans proved themselves to be a commercial people, and their whole political development has proceeded on commercial lines. Their fiscal legislation, their railroad subsidies, their lavish expenditure on canals and harbours, their Treasury arrangements, their

banking laws, and a multitude of other illustrations, show how the trading spirit was always uppermost in them. Their very errors and economic heresies proceeded from over-haste to enter into the full enjoyment of their national heritage. The commercial instinct has grown among them with the growth of their boundless resources. Associated as it is with great self-confidence and a soaring ambition, it has become more and more powerful until it now seems to dominate the whole national life. The one idea which fascinates and sways almost every American is success in business,—not ordinary success, such as would satisfy other men, but something brilliant, dazzling, phenomenal. They dream by night and by day of big deals, gigantic combines, and world-wide monopolies. To the front of this fervid crowd have rushed a small group of leaders for whom nothing is too large. They will face any risk in order to achieve a fresh *coup* more daring than any of its predecessors.

It may be said that this is business run wild, and that it cannot possibly be carried much further without a catastrophe. But it has suffered and survived a good many catastrophes. No matter how severe the punishment may be, it is soon forgotten, and the demon of commercial rivalry once more seizes the nation. It appears to be as irresistible as it is universal. No known barrier, legal or political, has so far been able to check it. Special efforts are being made now in various directions, but as yet not one of them looks as if it had a chance of success. Political remedies are partic-



ularly weak, because they are to a large extent inconsistent and of doubtful sincerity. The political system which has helped so largely to create this colossal money power cannot be expected to undertake very cordially the painful and difficult task of curbing it. American politicians are too much compromised with the "combineers" to be safe police to employ against them.

It is becoming a question if the "Morganeers" have not already got control of the Government. Without so far interfering in American politics as to express an opinion on that point, we have to keep in view the contingency suggested. Even as a mere contingency it may have to be taken into account. It can be seen at a glance what a formidable power the organisers and controllers of the mammoth combines would be if they had Congress on their side. Even if they could only count on its benevolent neutrality, as indicated in the Republican platform for the recent state elections, they would be almost invincible. The whole political machinery of the Union would have to be modified before they could be attacked with much hope of success. The existing machinery practically belongs to the millionaires. They had it framed years ago to serve their ends. They provide most of the money to operate it, and from their offices they can pull all sorts of wires to make it work as they wish.

There are many anomalies in the political system of the United States, and one of the most

striking is the influence which mere money can exercise in it. The "almighty dollar" would seem to be as potent in politics as in business. In any other country than the United States it would be impossible to find plutocrats and working men voting together as they did for the late President McKinley both in 1896 and in 1900. If the first election be explainable on the theory that the Bryan bogey frightened rich and poor alike into the Republican fold, the same can hardly be said of the second. The Bryan bogey was then a mere shadow of its former self. The country had ceased to be seriously afraid of it. Nevertheless the anomaly of 1896 repeated itself: plutocrats and working men again voted together for McKinley. Whoever can find out the secret of that paradoxical co-operation will have a cue to the future history of American combines.

While this unavowed and possibly unintentional alliance of wealth and labour can be maintained at the elections the reign of trusts and combines will be prolonged. It is from Congress alone that they have much to fear. As it made so it must one day unmake them, but when and how? Many suggestions and proposals have been offered toward that end. Almost any one of them might have a good effect if it were tried in earnest, but so far the defence has been much more earnest than the attack. The "Morganeers" have not only got hold of the Republican machine, but they are well armed with specious catchwords which have too

long passed for patriotic to be all at once discredited. To an old-time Republican who remembers the zeal with which he fought for the McKinley tariff of 1890 and the Dingley tariff of 1897 it would be a wrench to face round and vote for repealing, or even for reducing, a single duty then imposed. However much he may fear and hate the trusts, it will seem to him a terrible price to pay for their subjugation. Even to put iron and steel on the free list, to say nothing of beef, would cause him a pang.

That fact the "Morganeers" know well, and politically they trade on it. While the glamour of protection can be kept alive in the Republican party they will be comparatively safe. No money of course is being spared toward that end. Party conventions were never watched so closely from Wall Street. Campaign funds were never supplied with such royal prodigality. Public opinion was never so carefully educated in the true tariff gospel. Above all, the lobby at Washington has never been so systematically and assiduously worked. On this delicate point native testimony is to be preferred to foreign, and it can be easily obtained. Here is what a New York journal of the highest character—the 'Journal of Commerce and Commercial Bulletin'—had to say about it not very long ago:—

That the conditions which prevailed about the Capitol during the past session as regards the work of lobbyists were of such a character as to surprise even

the most experienced is the testimony of those who have closely studied legislative conditions in Washington for a long time. Experienced observers have no hesitation in saying that the lobbyists were more numerous, their efforts more brazen and unblushing, and their success as great, if not greater, than for a long time heretofore. We do not believe that this condition of affairs is in any sense due to moral deterioration or corruption of a darker hue than that which has existed in the past. But while it is doubtless true that our public men are as upright, their motives as clean, and their legislative methods as free from reproach as they generally are, it is also true that certain conditions have conspired during the past session or two to stimulate the greed of special interests, and hence to attract to the national capital a greater proportion than usual of those who always gather together at the suggestion of prey.

American men of business might well be satisfied with the legitimate help which Congress can give them, for it goes far beyond what any Parliament does or pretends to do for its commercial constituents. Congress is in the happy position of being able to devote an unusually large proportion of its time to business affairs. It is not encumbered with so many theoretical and sectarian questions as the average European legislature. It is not liable, like the British House of Commons, to be called upon to give the best part of a session to a periodical fight between two rival sets of educationists. Education is wisely left to the state legislatures, and even they seem to be happier in their treatment of it than the House of Commons.

Neither has Congress an everlasting public-house problem to solve. That, too, falls to the share of the state legislatures. Generally speaking, Congress has no moral or social problems to worry it. There has been no Home Rule question at Washington since state rights received their quietus in the Civil War.

Apart from administrative measures Congress has no great demands of a purely political sort on its attention. Consequently it has abundant leisure and opportunity to study the commercial interests of the country. That it does so faithfully and diligently its records prove. Rarely a session passes without some commercial or financial legislation of permanent value. Its tale of work in 1902 includes the Isthmian Canal Bill; a special tariff for the Philippine Islands; a new consular and diplomatic service for Cuba; a law authorising a twenty years' renewal of the national bank charters; repeal of the last seventy million dollars of war taxes; restrictions on the trade in oleo-margarine; establishment of a permanent census office; and an important scheme to promote the irrigation of arid lands in the Far West.

Congress is essentially modern, and in that respect thoroughly represents its constituents. Every question of the day gets to Washington by a very short cut, and is as promptly discussed there as in the press or on public platforms. The pulse of legislature and people beat together on nearly all practical issues of the day. The

anomaly is seldom experienced, with which Englishmen are so familiar, of the public being intensely interested in one question while Parliament is worrying itself day and night over something entirely different. Congress can hardly be imagined ignoring a crisis in the American shipping trade because it happens to have differences to settle between Church and Chapel. It is one of the very few national legislatures that give trade and commerce a worthy position on their programme. It is constantly in touch with all the trading interests, large and small. Sometimes there are insinuations of too close intimacy between them—and that may be as great a danger of an opposite kind to ours. But if Congress is to be judged by the amount of business legislation it turns out session by session it will come off creditably. Except the German Reichstag it has no competitor in that line.

In these days of industrial activity how many legislatures are there which can be said to have much industrial value? In other words, how many of them give real help and guidance to the industrial community? The British Parliament cannot be placed high on the list, for a very small fraction of its time is devoted to purely industrial or commercial topics. It does not grudge them a few Select Committees every session, with a Royal Commission now and then, but its own attention is generally monopolised by more exciting questions. It can spend weeks or months

over a vain attempt to keep alive the England of Cromwell's time with all its theological dogmas. Whether it will or not, it must listen for weary nights to the everlasting jangle of Home Rulers. But commercial subjects it deliberately and systematically shirks. It has not for years grappled with a single problem of this kind in real earnest. A Government without any commercial initiative and a House of Commons with the very minimum of commercial interest or experience sit contentedly at the head of the British Empire, letting all the great issues of modern civilisation drift past them.

In this connection may we recall how the Atlantic shipping ring was treated last session? Very early in the session the announcement that an American financier had captured several of our principal shipping lines fell like a bombshell on the country. It caused profound excitement in all business circles, and was warmly discussed from every point of view. Our naval as well as our commercial future seemed to be threatened by it. The public felt a genuine alarm, and looked anxiously to the Government for some indication of a policy in the matter. When Ministers allowed days and weeks to pass without a hint of action, or even of thought on the subject, questions were showered on them in both Houses of Parliament. But all of them were politely fenced off, and six months later the session ended with never a clear word yet said. In one form or another the shipping question has been to the fore for two or three



years, but it makes little progress either in Parliament or out of it. For many reasons a shipping policy is urgently needed, but it has not yet begun to emerge from the chaos of popular discussion. It continues to float on the horizon, without form and void—a shapeless cloud of conflicting rumours and competing schemes.

Where else could such an issue have been so trifled with? Certainly not at Washington. If Mr Pierpont Morgan had been an Englishman and the White Star an American line the Americans would have soon known how they stood about it. Congress would have come to some decision in less than six months. It might have been wise or it might have been foolish, but it would at least have been definite and intelligible. At Westminster such a crowd of parliamentary stereotype blocks the way that there is room for nothing of immediate interest, however important it may be. The real questions of this day must wait their turn until the political ghosts of years ago have been relaid. American politicians waste very little of their time laying and relaying ghosts. They prefer working for the present to trying to keep alive the past. Consequently congressional debates are invariably up to date. They are live events, beginning and ending in practical work.

The danger of a legislature like this is not that it may do too little but that it may do too much. From a commercial point of view that is the American danger of the present day. Congress is

so charged with patriotic pride in the industrial progress of the Republic that it considers it the duty of every American citizen to promote that progress. Every bill coming before it with such an ostensible object it views with a friendly eye. Its partiality is liable to abuse, and no doubt is frequently abused; not necessarily by the gross expedients of a past generation, but in a thousand subtle ways at which the millionaire of to-day is an adept. The very patriotism of Congressmen may be exploited by the expert lobbyist. Ship subsidy bills, pure food bills, harbour appropriations, protectionist tariffs, and a hundred other schemes may be presented to him in such a way that he plays into the hands of the financial octopus even when he fancies he is acting strictly on his own convictions.

The same friendly bias which ensures favourable consideration of all measures of plutonic origin will be equally serviceable in defending the monopolist from hostile movements. It may bring to naught the impending anti-trust campaign. It may render the iron and steel section of the tariff invulnerable for years to come. It may secure to the Beef Barons a prolonged hold on the meat-supply of seventy-eight millions of people. It may even cast the shield over the half-dozen railroad companies which have divided up amongst them the whole anthracite coal-supply of Pennsylvania. There is no saying what Congress may or may not do in the next few years when exposed to

all the pressure, direct and indirect, that unlimited wealth can bring to bear on it. It may become clay in the hands of the trust-mongers and the subsidy-hunters, or it may turn against them, and in attempting to break them up may precipitate a crisis greater than any yet experienced ; or it may itself be revolutionised by a violent revolt of public opinion.

Whatever happens, Congress will always be a keen and active factor in the industrial problem, not at home only but throughout the world. If it had no prerogative but the making of the tariff, that alone would render it a great industrial force. But in many minor ways American politics enter into business. The army of United States consuls that has spread itself over the globe is a huge commercial agency, very thinly disguised—often with no disguise at all. Consuls are selected for their business capabilities, and encouraged to exercise them at every opportunity. No official dignity or etiquette is allowed to stand in the way of securing a good contract for American manufacturers. They are even permitted to enter into correspondence with local Boards of Trade and private firms. So long as they can open up new markets for American exports they are not to stand on the order of doing it.

The British sense of official propriety may often be shocked by the unconventional methods of the American consul, but when we come to judge results there can be no doubt which system is

most productive. On all the regular tourist beats it is generally remarked how much more information and assistance can be obtained from American consuls than from those of any other nation. They invariably know best what is going on around them, and they are most ready to leave the beaten track when there is anything to be gained by it. In small matters as well as great they are famous for their persistency, and, like the widow in Scripture, they know how to ask. At the same time, it is due to them to acknowledge that they are ready to serve all comers, whether American or not. In some foreign ports British merchants can get more help from American consuls than from their own—not because the British consuls are personally less obliging, but simply because they have less business experience.

It would have been impossible to work up so much zeal and diligence among American consuls if their labours had not been adequately appreciated at home. Whatever they do, whether it be making special inquiries or writing elaborate reports on the trade of their district, they know that not a particle of their labour is in danger of being wasted. In due time they will see that it has been utilised to the utmost by the department to which it is addressed. As soon as it is received a short abstract of it will be printed in the advance sheets of consular reports, which are issued daily. Thousands of business men have these advance sheets sent to them every morning

without charge. They go to all Boards of Trade, Chambers of Commerce, and the principal newspapers. Anything striking in their contents is at once seized upon and brought under public notice. Congress men too read these advance sheets diligently.

Elsewhere we have referred to the various statistical services carried on by the United States Government. There may be variety of opinion as to whether or not they belong to the sphere of politics, but their usefulness to business men is beyond dispute. The decennial census has now been carried far beyond a mere head-counting process. It has been developed into a permanent organisation for recording the industrial and economic progress of the country. Working in combination with the Bureau of Statistics, it furnishes exact data as to all the staple industries and trades of the Republic. The moral influence of such masses of systematised information is by no means indisputable. Undoubtedly they are open to speculative abuse, but on the other hand it may be argued that any possible abuse is far outweighed by their legitimate uses. They have certainly contributed in no small degree to the large-mindedness of the Americans in business. They foster a habit of taking wide views and a corresponding boldness in acting on them.

The big operators in Chicago and New York are invariably expert statisticians. To use a

favourite and characteristic expression of their own, they "figure out" things carefully before launching into any large operation. Originally they collected their own statistics, and it was to counterbalance the immense advantage these gave them over the ordinary farmers and traders that official statistics were undertaken. Now the latter are far more elaborate than any private individual or corporation could hope to rival. The official statistics have in most cases become the standard basis for "future" dealings. Quite apart from those who trade on them they are of great interest and value to the community. They form, in short, a very important branch of industrial and commercial education among the Americans. In international even more than in domestic trade they are increasingly appreciated. Americans frankly admit the great advantage they derive from them in competition with nations like our own, whose commercial statistics are half a century or more out of date.

## CHAPTER XX.

## INTERNATIONAL FACTORS.

## I. THE TARIFF.

ON the magnificent fabric of American industry there is a shadow—the protectionist tariff. It greatly detracts from the credit due to the designers and builders of this gigantic organisation. If they had really achieved their success, as at first sight they may appear to have done, by their own unaided energy and skill, no praise could be too strong for them. But when we learn that they have throughout been aided by public bounties of every conceivable kind, national, state, and municipal, our admiration for them necessarily cools a little. These bounties have to be investigated, or at least the chief of them, for they have been important factors in the industrial development of the country. They are still important, for the question of their continuance or otherwise gravely concerns the future of the industries now enjoying them. A material change in the tariff, for example, might precipitate an industrial rev-



olution, and give a new turn to the stupendous industrial experiments now in progress.

In this connection the tariff first claims attention, as it is the mother of all State bounties. It is the national model on which all other subsidising arrangements have been planned. We speak of it now simply as an industrial factor, as one of the recognised agents in the creation of American manufactures as they exist to-day. Abstract theories of free trade and protection are quite beside the case. It is with the United States tariff "as a business proposition" we have now to deal. The question is, what influence it has had on the building up of American industries, and how they might be affected in future by its withdrawal. Mere mention of the average rates of import duty during the past quarter of a century should be proof enough of the immense help the tariff has been to American manufacturers during that period. Since 1875 it has ranged from 40 to 50 per cent of dutiable imports, and from 20 to 30 per cent of the total imports.

It is a paradoxical feature of the United States tariff that it has grown with the industries it was intended to foster, and the stronger the industries have grown the more fostering they have obtained. If an explanation of that paradox were asked for at Washington, it would very likely be said with a shrug of the shoulders that the more the industries prospered the better able they were to

pay for being fostered. The relation between tariff duties and campaign funds has always been notoriously intimate. On both sides it has been a question of business rather than of politics. The Republicans, however, have all through these twenty-five years been the high-tariff party. It was their high tariff of 1883 that began the new industrial *régime*, and, with only one important interruption, it has continued ever since. Just now, in fact, it is for the first time being seriously called in question. The tariff has been a campaign issue before, but only a party issue. Now it is becoming a national issue, and next to state rights, which caused the Civil War, it is the most momentous that has yet been raised in the whole history of the Union.

The industrial *régime*, dating from 1883, has had four tariffs—one Democratic and three Republican. Previous to 1883 dutiable goods had paid about 43 per cent overhead. The Republican tariff of that year raised the average by degrees to 47 per cent. In 1890 the McKinley tariff came in and gave the average a further lift to about 50 per cent. In 1892 the Democrats returned to power under Mr Cleveland, and were only too successful in redeeming their pledges to give the country “a tariff for revenue” only. This was the Wilson tariff of 1894, which during its brief life of three years knocked about 10 per cent off the average rate of the duties. In 1896 the *ad valorem* rate levied on all duti-

able imports was only 40·18 per cent. This was the starting-point for another high tariff reaction under Republican auspices. The Dingley tariff of 1897, still in operation, raised the average from 40·18 per cent to 50·21 per cent in 1899. In 1901 it was 49·83 per cent.

The high-tariff party object to these averages on dutiable goods only as not giving them credit for their enlargement of the free list. They prefer the average rate of duty on gross imports dutiable and free together. By this standard the tariff of 1883 gives a range of 28½ per cent to 31 per cent; the McKinley tariff (1890-94) 21·26 per cent to 25·25 per cent; the Wilson tariff (1894-97) 20·23 to 21·89 per cent, and the Dingley tariff 24·77 per cent to 29·48 per cent. Under either standard the Dingley tariff, now in operation, is the highest, and it may therefore be fairly said that American industry has enjoyed of late years the largest amount of bounty nursing in its whole history. How much that may have had to do with the way in which the industrial bosses have waxed fat and kicked is a curious point for further inquiry. The Iron and Steel Kings, the Coal Ring, the Beef Barons, the Sugar Lords, and the Tobacco Trust, are all strongly intrenched behind custom-house barriers. They would be positive idiots if they could not make quick fortunes in such a situation; but being as they are the picked brains of nearly eighty million people, it can be imagined how the millions of dollars roll up under their strong hands. Subjoined are a few

samples of the "protective" duties which have protected them into a state of all-devouring omnipotence :—

THE UNITED STATES TARIFF FOR TRUSTS, 1902.

*For Iron and Steel Kings.*

Iron, manufactures of	.	.	45 per cent ad valorem.
Steel,	"	.	" "
Bronze,	"	.	" "
Copper,	"	.	" "
Tinned plates	.	.	1½ cents per lb.
Hoops, iron or steel	.	.	5·10 " "
Iron screws	.	.	12 " "
Cut-nails	.	.	6·10 " "
Horse-shoe nails	.	.	2¼ " "
Lead pigs in bars	.	.	2½ " "

*For the Coal Ring.*

Soft coal	.	.	67 cents per ton.
Anthracite	.	.	free.

*For the Beef Barons.*

Beef	.	.	2 cents per lb.
Cattle	.	.	27½ per cent ad valorem.
Hams and bacon	.	.	5 cents per lb.
Lard	.	.	2 " "

*For the Sugar Lords.*

Sugar under 16° Dutch standard		$\frac{95}{100}$ cent per lb.
Sugar over 16°	"	$1\frac{95}{100}$ " "
Molasses 40° to 56°	.	3 cents per gal.
" over 56°	.	6 " "

*For the Tobacco Trust.*

Tobacco, unmanufactured	.	35 cents per lb.
" stemmed	.	50 " "
Cigar-wrappers	.	1·85 dols. "
" stemmed	.	2·50 " "

The iron and steel makers, it will be observed, have practically everything handicapped in their favour. In their schedule of the tariff there is nothing free except needles, gun-barrels, and hoops for cotton bales—a rather odd selection. The Sugar Lords and the Tobacco Trust are armed against foreign competition at every point. The Coal Ring make a show of liberality by taxing only soft coal and allowing anthracite to come in free, but as they control all the anthracite known to exist on the American continent, that concession is much larger in appearance than in reality. The exact quantity of duty-free coal that entered the United States in 1901 was one ton! The Standard Oil Company appears to be the least greedy of all the trusts, fiscally speaking. Only one kind of oil is subject to import duty, and the total quantity on which the duty was paid in 1901 was 46,658 gallons, while fully two million gallons was admitted duty free.

The United States tariff is one of the sort technically distinguished as a double-barrelled tariff. It employs both specific and ad valorem duties, and happy the import which is not subjected to both. The complications hence arising render it wellnigh impossible to convey to British readers an adequate idea of the working of the American fiscal system in particular cases. The nearest we can get to that is a set of average percentages on the principal classes of imports, which has been laboriously worked out by the Customs Depart-

ment. The following were the averages for 1901 on the specially protected imports most obnoxious to trusts and combines :—

AVERAGE PERCENTAGE, UNITED STATES IMPORT  
DUTIES, 1901.

Animals . . . .	24·65	per cent	ad valorem.
Bread-stuffs . . . .	34·11	"	"
Chemicals . . . .	26·96	"	"
Cotton, manufactured . .	54·87	"	"
Iron and steel . . . .	38·15	"	"
Leather, manufactured . .	35·13	"	"
Provisions . . . .	39·38	"	"
Sugar and molasses . .	72·43	"	"
Tobacco . . . .	110·63	"	"
Wool, raw . . . .	50·80	"	"
" manufactured . . . .	91·30	"	"

The iron and steel average may seem low compared with the nominal rates in the tariff, but that may be due to the bulk of the imports having been of low grade. In previous years, when the imports were larger and more varied, the average percentage of duty came out a good deal higher. In 1893 it was 62·80 per cent, and in 1894 68·41 per cent. Another cause peculiar to the country may be keeping it down at present—namely, the very liberal system of drawbacks in vogue. American iron and steel makers not only have their own products heavily protected, but when they find it convenient to utilise the cheaper products of foreign rivals every facility is given them for doing so. While the foreign maker is forbidden to put down

his iron or steel in the United States on fair terms, the American maker may buy foreign iron or steel, import it into the United States, use it to fill a foreign order, and, having reshipped it, may claim from the custom house a refund of the original duty!

This, we fear, is too smart an operation for the Cobden Club philosophers to be able to follow. It goes right in the teeth of one of the strictest canons of their religion. They have always taught that protective duties handicap the protected industries as regards foreign markets. So no doubt they would if we were all Cobden Club philosophers, but American manufacturers, who are in business not for theory or for fun but for cold dollars, do not allow cobwebs of that sort to stand in their way. They know how to make the best of both worlds—of the new one by keeping it to themselves, and of the old one by drawing on it for raw material when it can supply that cheapest.

Under the charmingly elastic and obliging administration of their tariff law they can have foreign as well as raw material duty-free, provided, of course, that it is to be re-exported as a manufactured article. Some time ago our own iron market was very much puzzled by the large orders they received from the United States. They could not understand how the buyers, after paying duty and charges, could make anything out of it. The British price, plus duty and charges, appeared to be higher than the nominal quotations in Pitts-



burg for corresponding makes. The Steel Trust itself being among the largest buyers rendered the case still more puzzling. But the American buyers, on being questioned, gave a very simple explanation. The British material was not intended for American but for foreign contracts, and the duty being reclaimable on shipment, it was just as much duty free as domestic material would have been.

It gives a fine touch of irony to American competition with European makers in foreign markets that the European makers should be allowed to provide the raw materials. If the American makers could use American materials only they might be a good deal less heard of abroad. But business is always business with them, and having a business Government the tariff is not allowed to stand in their way when there is a foreigner to be stewed in his own juice or fried in his own frying-pan. A recent writer in the 'Economist' may learn from this that he was rather premature in his rejoicing over the relatively high prices in the United States as a check on American competition abroad. "It is satisfactory," he said, "to find that for the present at least they [the Americans] are able to absorb all their enormous production at prices very much higher than those at present ruling in England. Pig-iron is selling with them at 80s. to 90s. as against 50s. to 60s. in this country, and steel billets at £6, 10s. to £6, 15s. against £5 to £5, 5s. in England. It is likely, therefore, to be some time

before they accept such prices as will enable them to enter into competition with English manufacturers."

As a matter of fact, American iron and steel makers are now hunting round for foreign business as briskly as ever. They mean to have it, however little they may make by it, and their own high prices for iron and steel will not hinder them in the slightest degree. So long as they can fulfil foreign contracts with foreign materials, practically duty free, what have their own prices to do with it? Evidently there is no end to the smartness of American industrials in their use of the Dingley tariff. They can make a close door or an open door of it as occasion requires. By way of stimulating our interest in it they are always introducing some new feature. Their latest expedient is the drawback on foreign materials worked up in the United States and re-exported. It is becoming quite an interesting side-show. Almost daily notifications are published of new drawbacks granted by the Customs Department. The latest we have seen refer to steel-wire nails for export made from imported steel billets; hard shell enamel made from imported alcohol; and refined molasses produced from imported raw molasses.

There is, however, the usual hope for European industrialists that American cleverness may overreach itself again, as it has frequently done before. These drawbacks and other privileges may intensify the already strong popular hostility to the

exploiters of the tariff. Tariff reform as a weapon of national defence against the trusts is coming into favour. It will certainly be one of the main issues in the next presidential campaign, and in any case it will become a more and more important factor in the industrial problem. The trust-mongers are fully aware of the pull which Congress has on them through the tariff, and it is quite pathetic to hear them plead for the maintenance of the import duties, not for the sake of the trusts—oh, no!—but with a patriotic view to capturing foreign markets!

The Industrial Commission of 1900 heard some entertaining evidence of this sort from the representatives of the trusts. Mr Charles S. Guthrie protested "that it was quite erroneous in every way that when an industry is exporting it does not need any tariff for protection." But he did not find it necessary to be at all consistent in the arguments he used to support his plea. One moment he was boasting that they could "whip the Englishman in his own market and make money," and the next he was complaining that the Englishman "when he had a surplus could dump it in America." He considered it better to dump on others than to be dumped on—hence the continued need of a tariff.

Mr Guthrie, in speaking thus for the trust-mongers, correctly represented them as a body, but there are one or two distinguished exceptions. Mr Havemeyer of the Sugar Trust, for instance,

differs strongly on this point from his allies. He told the Industrial Commission—

“One of the chief causes of industrial combinations in the United States has been undue protection by means of the customs tariff inducing in the first place excessive competition by the establishment of plants in the hope of securing the high margin between the cost and the foreign price plus the duty, and later combination in order to secure the advantage of this margin. He suggests a uniform tariff of 10 per cent as probably sufficient. In the manufacture of steel the United States can compete with any foreign market, but under the tariff rails costing \$15 per ton can be sold here for \$24.”

A well-known epigram is also attributed to Mr Havemeyer—

“The mother of all trusts is the customs tariff.”

The rock on which the advocates of a tariff for the trusts are most likely to split is the “dumping” of their surplus stock on foreign markets. By their own admission they have embarked on that policy not as an emergency measure but as a regular business. Most of the principal producers of world-wide specialities issue separate price-lists for domestic and foreign customers, and the latter are frequently the lower of the two. The Democratic National Committee made some fine campaign material out of this by getting copies of both lists and exposing the injustice done to the

domestic trade. Some of the examples given border on the comic. It is said, for instance, that the old wire-nail combination, after raising its home prices three or four times without corresponding advances in its prices abroad, made such a difference between the two that it became cheaper for American dealers to buy their wire nails in England and have them returned to the States. The combination put a stop to that, however, by cutting off supplies from the bogus importers.

During the past year some scandal was caused by shipments of tin-plates to Europe at a dollar per box under the Pittsburg price. The excuse in this case was that the shipments were small. The Canadians have been indiscreet enough to proclaim the fact that the American wire combine supply them with wire, free on board at Cleveland, considerably under their home price. Two years ago the difference was as much as 45 cents per 100 lbs. The trusts have attempted no answer to these disclosures, though they are evidently having a powerful effect on the public mind. The 'Journal of Commerce' expressed the feeling of American business men in a sentence when it said, "The situation, then, is one in which the nation imposes high duties on a foreign product in order to compel itself to pay high prices to its own manufacturers who are selling abroad for low prices."

There is a good opening here among Mark Twain's countrymen for his proverb, "You can

fool some people all the time, and all the people part of the time, but not all the people all the time." In a matter as to which the whole American nation has to be convinced it is hardly conceivable that the trust-mongers' high tariff for the home consumer and low tariff for the foreign consumer are to be allowed to establish themselves permanently. As yet it is not clear what shape the anti-trust campaign will ultimately assume. No doubt much of the outcry already heard is genuine, but a good deal of it may be bluff. On the Republican side especially there may be some hallooing merely to start a false scent, but that the trusts are to be materially affected by the outcome of the agitation there can be hardly a doubt. If the most inequitable and indefensible of their privileges are to be first attacked, it will be the protective duties, or rather bounties, which have made more American millionaires than all the gold and silver mines in the country.

The tariff, as Mr Havemeyer has said, is "the mother of all trusts," and their wet-nurse as well. They could not be more effectively tamed than by cutting off their fiscal milk-supply. Momentous consequences would be certain to follow. Many anti-trust men shrink from such a step for no other reason than its incalculable gravity. The strongest of the trusts might survive it ; some, like the Standard Oil Company, might be little disturbed by it ; but to the baser sort of them it might easily be a deathblow. Many a wind-bag now flaunting

bravely in Wall Street will be pricked if Congress should ever have the courage to substitute a plain revenue tariff for the present scheme of trust-fattening import duties. As a factor in the industrial problem tariff reform will, in the near future, be of greater weight than silver ever was.



## CHAPTER XXI.

INTERNATIONAL FACTORS (*continued*).

## II. EXPORTS AND IMPORTS.

WE have now studied American industry in many aspects, all of them important, but most of them chiefly of domestic interest. To other nations it does not matter a great deal how many million bushels of wheat the Americans may grow or how many million tons of iron they may produce annually so long as they keep it to themselves. But when they outgrow their own market and invade the markets of other countries then they acquire international interest. If Europe were to be perfectly candid with herself she would admit that that is what she is specially concerned about. It is the bogey of American competition in all parts of the globe that gives piquancy to the daily chronicle of American doings at home and abroad. This bogey has got on the nerves of Europe generally, and of European politicians in particular. It is high time to examine it and to ascertain, if we can, how much ground there is for the alarm it has raised.

Various tests may be applied to it, but the one which the general reader may be best able to appreciate is an analysis of American exports and imports. We may gather from these what is the actual position of the United States in international commerce, what is her relative position as compared with other nations, and what is her relative rate of progress. We may further learn if she has any peculiar advantages in international trade, and if so, what they are: also, if she has any peculiar disadvantages. In a word, what we have to find out is which comes nearest the truth—the enthusiasts, who predict a world conquest for American industry, or the sceptics, who regard its enormous expansion in the past five years as only a periodical spasm of speculative plethora. The imports and exports, intelligently examined, may furnish a few clues to that vital question.

First, then, has the growth of American foreign trade been of late so abnormally rapid as to throw all other nations into the shade? Certainly not as regards imports. These were in 1901—the latest year for which the official returns have been completed—almost exactly the same as they had been ten years before. In fact, they were a few million dollars less. Their aggregate value in 1892 was 827 million dollars, and in 1901 it was only 820 million dollars. But during the decade it had been very much lower than in either the first or last year. In 1894 it fell to under 655 million dollars; in 1898 it had a further drop to 616

million dollars, and even in 1899, prosperous as every American was then, it remained under 700 million dollars. So far as imports are concerned, there were only four really good years in the decade—two at the beginning, 1892 and 1893, and two at the end, 1900 and 1901.

The boom in American foreign trade is thus not to be found among the imports. It can be only among the exports, and therefore must be one-sided—too one-sided, indeed, to be long-lived. As regards exports, it was undeniably a record decade. Between 1892 and 1901 the domestic produce exported—excluding re-exports of foreign goods—increased by 40 per cent. From 1015 million dollars in 1892 it rose to 1460 million dollars in 1901, a gain of 445 millions: after all, not an immense result for ten prosperous years to achieve. Spread equally over the decade, it would have given an average of only  $44\frac{1}{2}$  million dollars a year. But the increase was not spread uniformly over a whole decade. It came in a much more dramatic way—all of a sudden in the last four or five years. The first half of the decade was a period of retrogression. The year 1895, which may be remembered as the free-silver crisis, fell short of 1892 by no less than 222 million dollars. From this bottom level the boom started, and in five years the exports nearly doubled themselves, having risen from 793 millions to 1460 million dollars.

What appeared at the outset a formidable quest-

ion is narrowing itself down by degrees. We have now to deal with an increase of 667 million dollars in the domestic exports during the comparatively brief period of six years, 1895-1901. The customs returns enable us to trace, if we will, this increase through all the various classes of exports which contributed to it. First we have the chief groups in which they are officially divided—agriculture, mining, forest, fisheries, miscellaneous, and finally manufactures. The separate totals of these for the respective years 1892 and 1901 were:—

COMPARATIVE EXPORTS, 1892, 1901.

	1892.	1901.	Increase.
Agriculture . . .	\$798,328,232	\$943,811,020	\$145,482,788
Mining . . .	20,692,885	37,985,333	17,292,448
Forest . . .	27,957,423	54,317,294	26,359,871
Fisheries . . .	5,403,587	7,683,353	2,279,766
Miscellaneous . . .	3,838,947	4,510,740	671,793
	<hr/>	<hr/>	
	\$856,221,074	\$1,048,307,740	\$192,086,666
Manufactures . . .	158,510,937	412,155,066	253,644,129
	<hr/>	<hr/>	
Total exports . . .	<u>\$1,014,732,011</u>	<u>\$1,460,462,806</u>	<u>\$445,730,795</u>
Percentage of manu- factures to total . .	15'70	28'22	

With two exceptions the above movements are all normal. The general increases are in fact nothing extraordinary. The first of the two exceptions, the agricultural increase of 145½ million dollars, was due to a well-known cause—short crops and high prices of bread-stuffs in Europe, of which the American farmers had the principal benefit. The second, a 253½-million-dollar increase in manufactured exports, is the one which has excited Americans and non-Americans alike, though in

very different ways. For a time it agitated the whole commercial world as something unprecedented and portentous. Now that the portent has grown more familiar to us, it is found to be not so very formidable after all. It is not even entirely without precedent. Our own exports of British produce, which, by the way, are nearly all manufactures, have gained as much as 250 million dollars, or 50 millions sterling in a single decade. In the very decade (1892-1901) which realised such an enormous industrial expansion for the Americans, there was a British expansion almost as great. Exports of British produce rose from an aggregate of 227 millions sterling in 1892 to 273 millions sterling in 1901—say 46 millions sterling increase, equal to 230 million dollars, against the American 253½ million dollars. So far as exports go, the old country has not been left hopelessly behind yet.

But it is not the British people who will grudge the Americans their success or try to belittle it, much less regard it as a danger to ourselves. Though their gain in manufactured exports during the past decade is not so phenomenally great in the aggregate as it has been proclaimed in some quarters, it exhibits some remarkable items. When these are selected from the general list and tabulated by themselves they will be seen to reflect movements quite outside of the ordinary run of business. Such movements are in very few cases on a large scale. In less than a dozen out of about forty groups of manufactured exports are the

increases during the decade very striking. One principal group—metals and machinery—accounts for exactly one-half of the entire increase. The aggregate values at the beginning and the end of the decade were as follows:—

UNITED STATES EXPORTS, 1892, 1901. METALS AND MACHINERY.

	1892.	1901.
Brass and brass ware . . .	\$528,756	\$2,007,450
Copper " . . .	7,226,392	43,267,021
Iron and steel " . . .	28,800,930	117,143,503
Tin " . . .	225,113	516,343
Zinc " . . .	1,336,341	1,225,170
	<u>\$38,117,532</u>	<u>\$164,159,487</u>

A group which furnishes 126 million dollars of the whole 253½ million dollars increase is obviously the most important and the best deserving of investigation. As a secondary group of increases there are seven which may be taken together. Between them they account for a further 84 million dollars of the increase:—

UNITED STATES EXPORTS, 1892, 1901. TEXTILES, OILS, CHEMICALS, &c.

	1892.	1901.
Agricultural implements . . .	\$3,794,983	\$16,313,434
Cars, carriages, &c. . . . .	...	10,920,931
Chemicals . . . . .	6,693,855	14,384,453
Cotton goods . . . . .	13,226,277	20,272,418
Leather " . . . . .	12,084,781	27,923,653
Wooden " . . . . .	5,766,871	11,099,643
Oil, refined . . . . .	39,704,152	64,425,859
	<u>\$81,270,919</u>	<u>\$165,340,391</u>

In five primary and seven secondary groups of manufactured exports we have thus discovered 210 million dollars of the total increase on the decade. The remaining 43 million dollars is distributed over nearly thirty groups, none of them sufficiently important to require separate investigation. The crux of our inquiry is to be found in the metals and machinery exports; therefore we proceed to examine them more closely. The group which shows the largest expansion and is otherwise the best example of American industrial progress we shall deal with first—namely, iron and steel. It is officially subdivided into twenty-five sub-groups, as detailed below:—

UNITED STATES EXPORTS, 1892, 1901. IRON AND STEEL.

	1892.	1901.	Increase.
Pig-iron . . . . .	\$289,915	\$3,764,583	\$3,474,668
Scrap . . . . .	...	544,399	544,399
Bar . . . . .	80,698	884,094	803,396
Bars and rods, steel . . . . .	25,381	2,987,769	2,962,388
Billets and blooms . . . . .	...	3,158,239	3,158,239
Hoops, bands, &c. . . . .	4,145	167,942	163,797
Rails, iron . . . . .	8,007	32,567	24,560
" steel . . . . .	259,531	10,841,189	10,581,658
Sheets and plates, iron . . . . .	16,641	498,964	482,323
" " steel . . . . .	8,048	1,752,873	1,744,825
Tin-plates . . . . .	...	66,550	66,550
Structural iron and steel . . . . .	...	3,357,023	3,357,023
Wire . . . . .	852,659	4,104,563	3,251,904
Builders' hardware . . . . .	2,309,688	5,569,903	3,260,215
Saws and tools . . . . .	1,900,444	3,634,610	1,734,166
Car-wheels . . . . .	102,228	203,396	101,168
Castings . . . . .	789,146	1,135,453	346,307
Cutlery . . . . .	140,865	234,287	93,422
Firearms . . . . .	853,628	958,324	104,696
Nails and spikes . . . . .	433,430	1,815,293	1,381,863
Pipe and fittings . . . . .	...	5,139,895	5,139,895
Safes . . . . .	...	112,068	112,068
Scales and balances . . . . .	325,417	532,640	207,223
Stoves . . . . .	230,041	548,716	318,675
Sundries . . . . .	3,877,676	15,459,491	11,581,815
	<u>\$12,507,588</u>	<u>\$67,504,831</u>	<u>\$54,997,243</u>



It will be observed that the largest increase in the foregoing table is in steel rails—over ten million dollars a-year on the decade. But this increase was realised only in the latter half of the period. It began in 1897 and was very gradual till 1899, when it took a sharp jump from  $5\frac{1}{4}$  million tons to  $9\frac{1}{4}$  million tons. It reached its zenith in 1901, and has since shared in the decline of iron and steel exports generally. The next most expansive group is “pipe and fittings”—over 5 million dollars. From that should be deducted the export of 1892, not separately specified but lumped together under “All other manufactures of iron and steel.” About half-a-dozen of the increases average three million dollars each—namely, pig-iron, bar and rod steel, billets and blooms, structural iron and steel, wire, and builders’ hardware. Quite three-fourths of the sub-groups realised smaller increases than three million dollars a-year. Many of them tapered down to a few hundred dollars.

The unenumerated group, embracing exports not important enough to be specified separately, must have been varied and extensive, for its aggregate value is given in 1901 at  $15\frac{1}{2}$  million dollars. The increase here on the decade is also significantly large— $11\frac{1}{2}$  million dollars. What a bewildering assortment of Yankee notions might be got for  $11\frac{1}{2}$  million dollars! It is surprising to see what a very retail sort of movement the iron and steel exports have been as a whole. Only one individual group scored an advance of over ten

million dollars a-year during the decade, and much of it has been lost since. For every dollar's worth of iron and steel they exported in 1901 the Americans are now (1902) importing two or three dollars' worth. Let us see next how they have made up their machinery exports. These are tabulated below in the same manner as the exports of iron and steel:—

UNITED STATES EXPORTS, 1892, 1901. MACHINERY.

	1892.	1901.	Increase.
Cash registers . . .	...	\$873,121	\$873,121
Electrical . . .	...	5,812,715	5,812,715
Laundry . . .	...	479,274	479,274
Metal working . . .	...	4,054,313	4,054,313
Printing-presses . .	\$409,220	1,005,929	596,709
Pumps and pumping machinery . . .	...	2,187,246	2,187,246
Sewing-machines . .	3,133,992	4,095,663	961,671
Shoe-machinery . . .	...	953,898	953,898
Steam-engines, boilers, &c. . . . .	2,519,837	6,660,649	4,140,812
Type-writers . . .	...	2,827,329	2,827,329
All other machines .	10,229,293	20,864,352	10,635,059
	<u>\$16,292,342</u>	<u>\$49,814,489</u>	<u>\$33,522,147</u>

Here again we have a large aggregate advance,—no less than  $33\frac{1}{2}$  million dollars on the decade,—but it is spread over such a variety of different machines that nearly half of the total value— $20\frac{3}{4}$  million dollars out of  $49\frac{3}{4}$  million dollars—cannot be separately specified. In the ten sub-groups specified only one (steam-engines, boilers, &c.) approaches seven million dollars in value. Another (electrical machines) is just under six million dollars. Two are about four millions each—sewing-machines and machines for metal working.

Type-writers cut quite a figure in the table, nearly three million dollars' worth of them being now exported yearly. It looks odd, after all the trumpeting of the grand American locomotive, to find that as an export it is not much ahead of the ubiquitous type-writer. The number supplied to foreign railways in 1901 was only 423—less than in the preceding year by 102—and their aggregate value was only \$4,039,000.

Looking back on the American bridge scare, which echoed all through the British Empire when it was in sackcloth and ashes over its military and industrial inefficiency, it is amusing to see how little the Americans made out of their golden opportunity after all. "Structural iron and steel," which would be chiefly for bridge contracts abroad, though partly also for housebuilding, only amounted to 64,820 tons in 1902, with an aggregate value of \$3,357,000. Their electrical machinery they have pushed to better purpose. When first specified separately—in 1898—the annual export of this class of machinery was valued at a trifle over two million dollars. Next year (1899) it gained three-quarters of a million dollars, in 1900 a million and a half dollars, and in 1901 the same. This raised the export value in 1901 to fully  $5\frac{3}{4}$  million dollars.

## CHAPTER XXII.

## INTERNATIONAL FACTORS.

II. EXPORTS AND IMPORTS (*continued*).

FROM the point of view of international trade, exports may differ greatly in character and value. They may be—(1) exports, the peculiar produce of the country, and having practically no competition abroad ; or (2) exports of which the country is a large producer and a small importer ; or (3) exports which the country produces and imports in about equal volume ; or (4) exports of which it is a small producer and a large importer. Nowadays very few countries are in the first category. The United States has perhaps more exports peculiar to itself than any other country : more patented goods, special machinery, and original ideas. It holds a high place in the second category, being a large exporter and a very small importer of many staple articles—for example, bread - stuffs, petroleum, lumber, leather, and leather goods. In the third category—fairly balanced exports and imports—it has also a good position. But few patriotic Americans

would acknowledge the fourth category at all. They would scorn the suggestion that there are many things under the sun for which the United States cannot rely on itself rather than on any foreigner. Nevertheless there are a good many, as we shall find shortly.

There are few wholly one-sided branches of foreign trade. To put it in another way, there are few staple commodities which every commercial nation does not both export and import. Even bread-stuffs and hog products, sacred specialities as these are of Chicago, do sometimes get into the United States from abroad in spite of all the customs barriers raised against them. The moral of this digression is that exports can never be correctly estimated by themselves. They should in each case have the corresponding imports set against them, so that a balance may be struck between the two. The foreign trade of a country in a given staple is not the export or the import treated separately, but the two together. This holds more than usually true of the United States, which, as has been recently observed, may be by turns a large exporter and a large importer of the same commodity.

Without following this rather abstruse inquiry further, we may select from the foreign trade returns a few illustrations of it, which will be no less instructive and at the same time easier to understand. The exports analysed in the above tables may now, as it were, be paired off

with their corresponding imports. The comparison may show our American friends that they are not completely self-dependent.

# I. IMPORTS PREPONDERATING OVER EXPORTS.

## A. Food-stuffs.

	Imports.	Exports.
Fruit . . . . .	\$19,586,703	\$10,826,651
Spices . . . . .	3,563,109	20,204
Sugar and molasses . . . . .	90,487,800	3,513,489
Tea . . . . .	11,017,876	152,638
Rice and rice-flour . . . . .	2,324,898	186,729
	<u>\$126,980,386</u>	<u>\$14,699,711</u>

## B. Raw Materials.

Cement . . . . .	\$2,198,891	...
Fibres—flax, hemp, jute, &c. . . . .	22,932,506	...
Indiarubber . . . . .	28,455,383	...
Ores—tin, zinc, sulphur, &c. . . . .	21,839,125	...
Silk, raw . . . . .	30,051,365	...
Plants, &c. . . . .	1,098,932	...
Sulphur . . . . .	2,875,104	...
Wool . . . . .	12,529,811	...
	<u>\$121,981,117</u>	<u>...</u>

## C. Manufactures.

Bags and bagging . . . . .	\$32,762,608	\$4,302,876
Chemicals . . . . .	53,508,157	14,384,403
Glass . . . . .	5,010,675	2,126,309
Matting . . . . .	2,908,469	...
Lead, manufactured . . . . .	4,832,737	671,679
Woollen goods . . . . .	14,585,306	1,542,733
Wood, manufactured . . . . .	8,022,603	4,149,156
Cotton goods . . . . .	40,246,935	20,272,418
	<u>\$161,877,490</u>	<u>\$47,449,574</u>

## D. Luxuries.

	Imports.	Exports.
Flowers and feathers . . . . .	\$3,674,384	\$327,966
Furs, manufactured . . . . .	4,780,816	...
Ivory and ivory ware . . . . .	1,021,968	...
Diamonds and jewellery . . . . .	24,216,407	1,229,672
Silk goods . . . . .	26,842,138	253,808
Toys . . . . .	3,830,311	280,546
Wines . . . . .	8,219,236	504,573
	<u>\$72,585,260</u>	<u>\$2,596,565</u>

## II. EXPORTS PREPONDERATING OVER IMPORTS.

### A. Food-stuffs.

	Exports.	Imports.
Animals . . . . .	\$52,058,876	\$3,243,285
Bread-stuffs . . . . .	275,594,618	2,052,271
Eggs . . . . .	3,962,875	10,515
Provisions . . . . .	196,959,637	2,649,466
Tobacco, manufactured . . . . .	5,012,603	2,480,139
	<u>\$533,588,609</u>	<u>\$10,435,676</u>

### B. Raw Materials.

Coal . . . . .	\$22,317,496	\$5,381,474
Naval stores . . . . .	12,580,950	...
Oils—		
Animal . . . . .	1,018,431	277,108
Mineral . . . . .	71,112,788	172,465
Vegetable . . . . .	19,035,686	6,647,858
Oilcake . . . . .	18,723,672	64
Seeds . . . . .	6,384,415	4,039,194
Tobacco-leaf . . . . .	27,736,475	16,290,387
Wood . . . . .	44,422,982	15,605,049
Cotton, raw . . . . .	313,673,443	6,787,828
Marble and stone . . . . .	1,638,314	...
	<u>\$538,644,652</u>	<u>\$55,201,427</u>



*C. Manufactures.*

	Exports.	Imports.
Agricultural implements . . . . .	\$16,313,434	...
Cars, carriages, &c. . . . .	10,920,931	...
Firearms . . . . .	924,447	...
Glucose . . . . .	3,113,898	...
Gunpowder . . . . .	1,712,102	535,027
Iron and steel . . . . .	117,319,320	17,874,789
Musical instruments . . . . .	2,780,796	991,726
Paints . . . . .	3,036,343	...
Paraffin wax . . . . .	6,857,288	...
Photographic materials . . . . .	1,998,445	...
Scientific instruments . . . . .	7,361,231	...
Soap . . . . .	1,569,180	685,921
Starch . . . . .	2,005,865	...
Rubber goods . . . . .	3,246,633	1,660,316
	<u>\$179,159,913</u>	<u>\$21,747,779</u>

## III. EXPORTS AND IMPORTS NEARLY EQUAL.

	Imports.	Exports.
Clocks and watches . . . . .	\$2,038,239	\$2,340,751
Fish, fresh and cured . . . . .	7,261,411	6,789,482
Furs, skins, &c. . . . .	6,238,842	4,404,448
Leather goods . . . . .	6,185,897	6,603,007
Malt liquors . . . . .	1,885,215	1,723,025
Nitrate of soda . . . . .	5,776,566	5,048,396
Spirits . . . . .	4,162,149	3,054,273
Vegetables . . . . .	3,719,679	2,598,417
Paper . . . . .	6,186,675	7,542,640
	<u>\$43,454,673</u>	<u>\$40,104,439</u>

We may learn from these tables that, immense as is the volume of international trade, the portion of it exposed to keen competition is with most nations comparatively small. We may also learn

that no nation has in many branches of trade an overwhelming advantage over all others. International competition is, in fact, a series of special developments ever changing and never long in favour of any single competitor. It has its ups and downs, its backward and forward swings. It is most keenly felt by agricultural states, whose crops must be consumed, as a rule, within the year. It presses most lightly on industrial states, whose products keep longer than perishable food and whose operations may be quickly adapted to changed conditions.

Purely industrial states like the United Kingdom may fear a short supply of food or of raw materials, but their industrial skill, if jealously maintained, can never be taken from them. If now and then they fall behind, it rests with themselves to mend their pace. If the Americans have got ahead of us in certain industries which we have been accustomed to consider peculiarly our own, we may at least see to it that we are making the most of our resources, and then there will be no discredit in playing second to a rival whose natural resources and opportunities may be greater than our own. The proportion of our foreign trade which the Americans can take from us—if we defend it properly—is, after all, limited. All the addition they can make to their own trade at the expense of other nations will also be small compared with what they have already. Even where they think themselves strongest they have

met with many more checks than they bargained for.

To take them on their strongest point first—iron and steel—they had even in their banner year 1901 to import to the extent of nearly 18 million dollars (\$17,874,789). In the preceding year they had imported 20½ million dollars' worth against nearly 122 millions exported. In 1899 the respective totals were 12 million dollars imported and 93¾ million dollars exported. But these three years stand out from all others so prominently as to be quite abnormal. They were a complete reversal of the relations between exports and imports which had subsisted up to that time. So recently as 1893 the imports of iron and steel had exceeded the exports in value—namely, 35 million dollars against 30 millions. The tables were turned in 1895, when the imports fell to 23 million dollars and the exports rose to 32 millions—9 millions in favour of the United States.

But these figures show on their face abnormal conditions unlikely to prove permanent. This inference has been amply confirmed by the latest trade returns, which indicate a sharp swing back of the pendulum from the export to the import side. In the ten months ended with October 1902, American imports of manufactured iron and steel were double those of 1901 and three times those of 1898. They were in fact the highest of any year in the preceding decade. The corresponding ex-

ports showed large reductions. But even in their banner years 1899-1901 American iron and steel manufacturers were dependent on the foreigner for a number of specialties. They imported more bar iron than they exported, also wire rods, and in tin-plate the balance was heavily against them — \$3,770,000 imported against a nominal export of \$66,550. The last word has not by any means been said as to the future master of the iron and steel trade of the world.

Two years ago the Americans thought they had all the metal markets in the hollow of their hand, including copper. It is true that in 1901 they were the copper lords, but that dream of empire has also had a rude awakening, and even while it lasted the Americans were never able to dispense entirely with foreign supplies. Their huge export of 43 million dollars in 1901 had a considerable set-off in the 10 million dollars' (\$9,940,000) worth imported during the same year. The other industrial metals, it will be seen, play a very small *rôle* in American foreign trade.

Next to iron and steel, the industry which the Americans are pushing hardest is cotton manufacturing. In this they aspire not merely to be self-dependent, but to rule the international trade. They still find Great Britain and Germany very persistent competitors, however. In 1901 they were yet in the position of having to purchase more abroad than they could sell abroad. Their total exports of cotton goods—cloths, knit goods,

laces, thread, &c.—were valued at rather more than 36 million dollars, but the corresponding imports for the same year were  $40\frac{1}{4}$  million dollars. In woollen goods the balance is much more heavily against them. This is a case in which the foreign maker is on more equal terms with them as regards raw material. They cannot produce millions of bales of wool as they do of cotton. On the contrary, their home supply is still short of their domestic needs, though they are now striving hard to increase it. In 1901 they had to purchase  $12\frac{1}{2}$  million dollars' worth of foreign wool, and woollen manufactures to the value of  $14\frac{1}{2}$  million dollars. To these there were only two very small off-sets in the shape of exports—\$26,017 of wool and \$1,542,733 of woollen manufactures.

Notwithstanding the exorbitant protection it enjoys, woollen manufacturing appears to be a slow-growing industry in the United States. All it can do yet is to wrest the home market from the foreigner, and that it does slowly and painfully. The McKinley tariff failed to kill off imports as was expected, and a moderate amount still survives the Dingley tariff. The latter, however, succeeded in cutting down the 50 million dollars a-year of surviving imports to about one-third. In 1901, as above stated, it was  $14\frac{1}{2}$  million dollars, in 1900 fully 16 million dollars, and in 1899 under 14 millions. Importers seem to be recovering a little from the shock of the

Dingley duties. While the Americans are barely holding their own well-protected market it would be too much to expect them to make rapid headway as exporters. They advance, indeed, very slowly, their exports having in the past decade (1892-1901) gained little more than a million dollars a-year. By very short steps they have risen from \$367,737 in 1892 to \$1,542,733 in 1901. The Americans are not yet talking much about their woollen industry and its great future.

Leather is another of the industries they are making a strong fight for—in some branches too strong for their conservative British rivals. But the victory is far from being finally won. In this industry the Americans have still to import a large proportion of their raw material. The value of foreign hides and skins bought in 1901 was 14½ million dollars against little more than a million dollars exported. In leather they have obtained a considerable hold on the finer qualities, including what is known in the boot trade as “uppers”; but in sole-leather the British maker has still an indisputable lead. The cross-movement in 1901 consisted of 5¾ million dollars imported against fully 21¾ million dollars exported. Leather goods, chiefly boots and shoes, had, on the other hand, a closely balanced movement—6 million dollars in and 6½ million dollars out.

## CHAPTER XXIII.

INTERNATIONAL FACTORS (*continued*).

## III. AMERICA'S BEST MARKETS.

IN order to complete our study of American foreign trade in the decade 1892-1901, the subject has to be looked at from one more point of view—that of the foreign markets in which the Americans have made the greatest progress. The increase of 444¾ million dollars realised during this decade on American exports, where did it come from? That can be readily ascertained by tabulating the respective additions which the best customers of the United States made to their purchases in 1901 as compared with 1892—

## AMERICA'S BEST MARKETS, 1892, 1901.

<i>Exported to—</i>	1892.	1901.	Increase.
United Kingdom . . .	\$499,315,332	\$631,177,157	\$131,861,825
British North America . . .	44,885,988	107,746,519	62,860,531
British West Indies . . .	9,038,376	10,190,059	1,151,683
Australia . . .	11,386,677	30,726,687	19,340,010
British South Africa . . .	3,464,765	21,654,458	18,189,693
British East Indies . . .	3,674,307	6,251,804	2,577,497
Hongkong . . .	4,894,049	8,009,848	3,115,799
Total, British Empire	<u>\$576,659,494</u>	<u>\$815,756,532</u>	<u>\$239,097,038</u>



	1892.	1901.	Increase.
Austro-Hungary . . .	\$1,527,980	\$7,222,650	\$5,694,670
Belgium . . . . .	48,785,117	49,389,259	604,142
France . . . . .	99,126,707	78,714,927	<sup>1</sup> 20,411,780
Germany . . . . .	105,521,588	191,780,427	86,258,839
Italy . . . . .	14,317,782	34,473,189	20,155,407
Netherlands . . . .	43,917,984	84,356,318	40,438,334
Russia . . . . .	6,698,835	8,084,228	1,385,393
Spain . . . . .	11,528,424	15,480,288	3,951,864
Sweden and Norway .	6,579,381	11,844,152	5,264,771
Continental Europe .	<u>\$338,003,798</u>	<u>\$481,345,438</u>	<u>\$143,341,640</u>

<sup>1</sup> Decrease.

	1892.	1901.	Increase.
Mexico . . . . .	\$14,293,999	\$36,475,350	\$22,181,351
Cuba . . . . .	17,953,570	25,964,800	8,011,230
Central America . .	6,122,046	6,707,465	585,419
South America . . .	33,147,614	44,400,195	11,252,581
Africa (non-British) .	1,596,500	3,888,160	2,291,660
China . . . . .	5,663,497	15,259,167	9,595,670
Japan . . . . .	3,290,111	19,000,640	15,710,529
Dutch Indies . . . .	1,372,035	2,064,765	692,730
Oceania (non-British) .	4,186,090	4,665,714	479,624
	<u>\$87,625,462</u>	<u>\$158,426,256</u>	<u>\$70,800,794</u>

According to every practical test the British Empire is by a long way the best customer of the United States. No one will be surprised to hear that it consumes by far the largest share of American exports, but a more significant fact is, that its purchases continue to increase at the most rapid rate. By itself the United Kingdom might claim both these distinctions, but when Canada and Australia are combined with the mother country, their united custom throws into the shade all the other customers of the United States. It may therefore be said without any boasting that the future of the foreign trade of the United States depends more on the fiscal policy of the British

Empire than on any other single factor, or even combination of factors. Of the three groups into which it divides itself, the British Empire represents, as will be seen below, 56 per cent of the total, the continent of Europe 33 per cent, and all other markets, non-British and non-European, only 11 per cent.

	1901.	Per cent of whole.
British Empire . . . . .	\$815,756,532	56
Continental Europe . . . . .	481,345,438	33
Non-European and non-British	158,426,256	11
	<u>\$1,455,528,226</u>	<u>100</u>

As regards rate of increase the percentages are hardly less remarkable :—

	Increase, 1892-1901.	Percentage of whole.
British Empire . . . . .	\$239,097,038	53
Continental Europe . . . . .	143,341,640	31'5
Non-European and non-British	70,800,794	15'5
	<u>\$453,239,472</u>	<u>100</u>

This peculiar feature of their foreign trade is beginning to be noticed by the Americans themselves, and may not have been altogether without influence in toning down the anti-British prejudices of a few years ago. At this rather late period in the day it has dawned on them that feeding the British lion may be a more profitable amusement than twisting his tail. The pronounced partiality of the British lion for American food is a mark of flattery no longer to be despised. Official statis-

ticians at Washington must be becoming very much impressed by it, for they have taken to writing special reports and memoranda on the subject. In the Department of Agriculture they have a "Foreign Markets" division, whose duty appears to be to trace the distribution of American agricultural exports all over the globe. It has not only to see where they go but where there may be room for more. In fact, it is a very up-to-date businesslike department, and its views on the importance of the British market to American agriculturists are the most interesting and useful we could possibly have.

Mr Hitchcock, the chief of the Foreign Markets division of the Ministry of Agriculture, has recently made a very exhaustive investigation into the origins of the food-stuffs imported into the United Kingdom. This is a converse view of the question illustrated in our own tables given above. The latter show the percentages of American exports bought by the British Empire. Mr Hitchcock's report is intended to show the percentages of British imported food-stuffs drawn from the United States. His conclusions are even more favourable to the British Empire than our own. The period he investigated was the five years 1896-1900, when the total imports into the United Kingdom were 2308 million dollars, of which 62 per cent or 1459 million dollars was agricultural. Mr Hitchcock finds that "to this extraordinary import trade in agricultural products the United

States was the principal contributor, furnishing about 33 per cent, or nearly one-third of the supply. About 43 per cent came from foreign countries other than the United States. The several possessions and dependencies of the United Kingdom throughout the world together contributed about 24 per cent."

The advocates of free trade within the empire will find a powerful argument in the fact of only 24 per cent. of our agricultural imports being colonial while 33 per cent of them are American. Mr Hitchcock does not, of course, emphasise that aspect of the case. His anxiety takes quite another direction—namely, how to secure a still stronger hold on British markets. Large as is the American share of our agricultural imports, there are, it seems, still a few, in fact a good many, openings for its extension.

Among the agricultural imports into British markets during 1900 there were comparatively few products in which the United States controlled the larger portion of the trade. Taking such items as had a value exceeding \$10,000,000, of which there were thirty-four, only nine of them came more extensively from the United States than from the various other sources. These nine items, with the percentage of the total supply received in each case from the United States, were as follows: Lard, 93 per cent; hams, 89 per cent; fresh beef, 74 per cent; raw cotton, 74 per cent; tobacco, 84 per cent; wheat-flour, 83 per cent; cattle, 72 per cent; Indian corn, 70 per cent; and bacon, 64 per cent.

While other countries are the chief contributors of luxuries, the United States is the source from which the British people procure a large measure of those staple food-products that are absolutely necessary to the maintenance of life. This causes the peculiar dependence of the United Kingdom on American sources of supply.

During 1900 less than two per cent of the butter imported was furnished by the United States. For the imports received from other sources the United Kingdom paid over \$83,000,000. The eggs imported cost over \$26,000,000; only about three per cent went into the pockets of American exporters. About \$25,000,000 was spent by the British people for imported wines, less than one per cent of which came from the United States. About \$12,000,000 worth of oleomargarine was imported, of which the United States supplied less than one per cent. Nearly \$11,000,000 was spent for imported potatoes; practically the entire trade went to other countries than the United States.

The United Kingdom spent over \$10,000,000 in the importing of oranges; less than one per cent of the shipments received came from the United States. Numerous other agricultural products suggest possibilities in the way of a larger scale in the British market.

According to Mr Hitchcock, the United States has captured the lion's share of our imported food-stuffs, with the exception of the more perishable products—eggs, fruit, &c. At present the lion's share of these is enjoyed by France, but the ubiquitous American is after it. His "modern transportation methods" give him a chance to cut out the French producer, and his Department of Agri-

culture calls on him to be up and doing. Doubtless the call will be quickly responded to, and among the earliest developments of the Atlantic Shipping Trust, cold storage for dairy produce—including oleomargarine—vegetables, fruit, &c., will probably cut a prominent figure. Already our Jamaica banana trade has been Americanised, and Sir Alfred Jones's ally, the United Fruit Company of Boston, may soon be running its own steamers across the Atlantic to Liverpool or Bristol.

Anyhow, it is well to have the American side of the case presented to us with American frankness and precision. Would that our own side of the case—the British colonial side—were as plain to us. It is passing strange that we who control by far the largest market in the world—and the only free market—for agricultural produce, should have all these years preferred to draw on foreign sources of supply when colonial sources might have been as easily developed. It may be replied that American sources were nearer to us and more convenient; also that the Americans showed greater energy than our own colonists did in catering for the British market. Until quite lately the Canadians were considered a slow unenterprising race, and often they were asked why they did not imitate the go-ahead Americans. Perhaps if the old country had done as much for them as it did for the Americans when both peoples were still in their commercial infancy, there would have been

less occasion for invidious comparisons between them.

A curious and instructive chapter in the economic history of the United States has yet to be written. It begins with the victory of the free-trade movement in England, and it will close with the victory of *bonâ fide* free trade within the British Empire. Our first edition of free trade was well enough in its way. There is no room, and as little need, for dispute as to the immense benefits we derived from it, especially the powerful stimulus it gave to British commerce. All that may be put aside as a settled question, but the effects of our free-trade *régime* did not end there. They extended far beyond our own shores, and countries which would not look at free trade themselves were the principal gainers by the free market which Great Britain has all these years held open to them. The United States being in the best position to avail itself of that free market, very wisely made the most of it—so much so, that an interesting question might be raised as to whether Great Britain itself or the United States has been the greater gainer by British free trade.

It is a demonstrable fact that American trade and shipping made very rapid strides after British markets were thrown open to them by the repeal of our anti-corn laws and navigation laws. From 1850 onward they began a marked expansion, which may be accurately measured by the export returns of the period. At the commencement of the free-trade



*régime* American exports of all kinds were under 140 million dollars a-year. In 1850 they were still but 144 million dollars. In the succeeding seven years, however, they rose rapidly. Their increase in 1851 was 44½ million dollars, in 1853 15 million dollars, in 1854 34 millions, in 1856 44 millions, in 1857 12½ millions. In these seven years they more than doubled in value, the totals of 1850 and 1857 having been 144 million dollars and 294 million dollars respectively. If objection be made that the additional exports did not all go to the United Kingdom or its colonies, the answer is simple, that the bulk of them did. Great Britain and its colonies were then the only large markets for such exports as those of the United States, being, as they were, mainly agricultural. In 1850 the agricultural exports amounted to 108½ million dollars out of 144 millions, and in 1857 they were 227½ million dollars out of 294 millions.

We may go a step further and say that British free trade was a main cause of the great development which American shipping also underwent in those days. Previously there had been less than a million tons engaged in the foreign trade, but in 1850 the total rose to a million and a half tons, and in the following year to nearly a million and three-quarter tons (1,726,307 tons). In 1855 it exceeded two and a half million tons, and reached its zenith in the year before the Civil War with a total of 2,642,628 tons. In a more remote but still

quite appreciable degree British free trade gave a stimulus to railroad building in the United States. One of the avowed objects of the English free-trade leaders, Mr Cobden in particular, was to open up the boundless wheat-fields of the West and the cotton-fields of the South. For this railways were indispensable, and Mr Cobden and his friends assisted enthusiastically in their construction. He was one of the promoters of the first land-grant railway—the Illinois Central—and to the end of his life he followed with keen interest the railroading of the Great West. So also did many British railmakers and financiers of the day. It is a notable fact that nearly all the western roads originating in this period had an Englishman or a Scotsman at the back of them—witness Alexander Mitchell of the Chicago, Milwaukee, and St Paul, and John Crerar of the Chicago and Alton.

Most of the new railroads built in the United States between 1850 and 1860—what may be called the British free-trade decennium—were grain-carriers. But for the free market which Great Britain then gave to the American farmers these roads would not have been needed for years after. They could not have been financed without British capital, which to a large extent consisted of the profits British manufacturers were making out of the new *régime*. When this *régime* began there were only three or four thousand miles of railway in the United States. In 1850 it had grown to

nine thousand miles. In the next five years it doubled itself, and on the eve of the Civil War it amounted to over thirty thousand miles.

Out of the demand for railroads in the West arose another industry, which has also become one of the greatest in the United States—iron and steel. This being a later development, there was a greater supply of home capital available for it and less need of monetary help from abroad. Nevertheless, considerable amounts of British capital have at times been engaged in it, and there is at least one conspicuous example of what it owes to British brains and perseverance. On another ground we may claim a share in the credit of its marvellous success. It was the British built and British financed railroads of the west that gave the steel trade its initial start. In the first twenty years of its history they were its chief support. Recently it has branched out into many new ramifications distinctively American. To-day it has many special uses hardly known in Europe,—steel buildings, for example,—but although American steel makers have shot far ahead of our own both in quantity and variety, they do not forget who were their original teachers and at the same time their first bankers.

Great Britain may proudly say that she too has had her share in the most prosperous American industries of to-day—railroading, wheat-growing, and steel-making. More than that, she may claim some little influence in the determination of their

future. That we should grudge the Americans their "phenomenal prosperity," as they call it, is never hinted at here. That we should enter into any unfair competition with them is still less thought of. But we might be too angelically perfect if we never allowed a doubt to suggest itself to us as to the wisdom of our present commercial relations with the Americans. If it be true, as has been shown, that we first gave them a free market—the only one they have ever had outside of their own territory—and then helped them in a variety of ways to supply it, we may surely consider whether this kind of missionary benevolence is bound to continue for ever. When our own colonies come forward and contrast the neglect they have experienced with the encouragement of all kinds lavished on the Americans, there is at least a *prima facie* case for inquiry.

Taking the official evidence furnished by the Americans themselves—*vide* the above special report of the Department of Agriculture—why should 74 per cent of the fresh beef we import have to be American, 72 per cent of the cattle, 83 per cent of the flour, 64 per cent of the bacon, and 89 per cent of the hams? To say that all these things are easier got from the United States than from Canada or Australia is no answer. It was we ourselves in the first instance who made them easier to get. We helped to open up the wheat- and meat-growing areas of the United States. We helped to give them cheap transportation to the

seaboard, and it was in British ships that they crossed the ocean. Much if not all of that might have been done for Canada if the leaders of public opinion in our anti-corn-law days had been less enthusiastic and indiscriminate admirers of the Great Republic.

Every monthly issue of our foreign trade returns should force on us anew the question, Why get so much more from the United States than from any other producer of food-stuffs and raw materials? Our partiality for the Great Republic—and such a one-sided partiality, too!—is very disinterested, no doubt, but is it business? Is it even good politics? In the year 1901 we imported American cattle and meat products to the value of over 31 millions sterling, from our own colonies to the value of less than  $7\frac{1}{2}$  millions sterling, and from Argentina to the value of less than 2 millions sterling. Going through the list item by item, it becomes monotonous to find the Americans in command of two-thirds of the trade and leaving a poor fourth to all the rest of the world, our colonies included. For imports like the following the Americans hold no patent, neither have they insuperable natural advantages. They have simply “got there,” and so long as British partiality for them continues they will stay there. The subjoined table contrasts the respective shares of the United States and of British Colonies in the supply of our imported meats in 1901:—

BRITISH MEAT IMPORTS, 1901.

	Total.	From United States.	From British Colonies.
Live cattle . . .	£8,817,064	£7,293,942	£1,491,472
Live sheep . . .	582,969	460,349	99,506
Beef, fresh . . .	8,906,839	6,761,587	745,296
" salted . . .	270,409	246,927	...
" hams . . .	4,528,388	4,209,816	304,822
Pork . . .	1,715,633	762,993	...
" salted . . .	324,174	207,856	...
Bacon . . .	13,590,176	9,255,851	921,509
Meat, preserved . .	2,282,262	* 1,692,000	...
" unenumerated .	1,120,447	275,913	...
Mutton, fresh . . .	6,597,780	...	3,901,952
	<u>£48,736,141</u>	<u>£31,167,234</u>	<u>£7,464,557</u>

\* Estimated same proportion as fresh beef.

It is a curious coincidence that the relative values of our imported bread-stuffs received from the United States and from British colonies are almost identical with those of the meat imports. In 1901 they were rather more than 30 millions sterling from the United States as against  $7\frac{1}{4}$  millions sterling from our own colonies. Subjoined are the interesting details:—

BRITISH BREAD-STUFF IMPORTS, 1901.

	Total.	From United States.	From British Colonies.
Wheat . . .	£23,089,087	£13,475,541	£5,538,946
Flour . . .	10,341,347	8,698,249	628,611
Barley . . .	6,218,296	872,694	...
Oats . . .	6,349,449	1,185,928	319,118
Peas . . .	747,023	...	285,945
Maize . . .	12,387,342	5,944,900	476,224
	<u>£59,132,544</u>	<u>£30,177,312</u>	<u>£7,248,844</u>

To the above 30 millions sterling of bread-stuffs and 31 millions sterling of meat-stuffs which we

imported from the United States should be added 2 millions sterling of dairy produce and  $3\frac{1}{2}$  millions sterling of tobacco, making a grand total of  $66\frac{1}{2}$  millions sterling, or  $332\frac{1}{2}$  million dollars: nearly one-fourth of the total exports of the United States. It is generally supposed that the Americans supply us with the best part of our raw materials, but that is unduly flattering to them. In this department they are beaten by our own colonies in every staple save one. But for their cotton and petroleum they would make a poor show in this branch of their exports.

BRITISH RAW MATERIALS IMPORTED, 1901.

	Total.	From United States.	From British Colonies.
Cotton, raw . . .	£41,985,174	£32,355,712	£8,983,334
Copper, ore . . .	1,251,940	31,588	510,698
" regulus . . .	3,668,660	695,898	...
" part wrought .	4,733,686	1,360,852	1,352,980
Iron, pig . . .	772,533	132,784	...
Lead, pig and sheet .	2,843,996	581,685	784,964
Tin . . .	4,215,645	...	376,196
Petroleum, lighting .	3,949,705	2,639,527	...
" lubricating .	1,132,383	832,777	...
Tallow . . .	2,333,156	453,074	1,317,753
Timber . . .	21,770,489	2,787,132	5,002,227
Wood-pulp . . .	2,412,833	91,491	312,084
Wool . . .	21,503,960	...	18,154,295
	<u>£112,574,160</u>	<u>£41,962,520</u>	<u>£36,794,531</u>



## CHAPTER XXIV.

## TYPICAL INDUSTRIES.

## I. FARMING.

THE distinctive farm crops of the United States are corn, wheat, oats, and barley. All of these cereals are grown in larger quantities than can be consumed at home, consequently their value to the growers depends not a little on foreign markets. As a basis for estimating their national importance the most convenient year to take will be 1901, for which the final official returns have just been completed. The average and aggregate yields of that year were—

	Acres.	Bushels.
Winter wheat . . . .	28,749,563	429,675,000
Spring wheat . . . .	21,145,951	318,785,000
Total wheat . . . .	49,895,514	748,460,000
Corn . . . . .	91,349,928	1,522,519,891
Oats . . . . .	28,541,476	736,808,724
Barley . . . . .	4,295,754	109,932,924
Grand total . . . .	<u>174,082,672</u>	<u>3,117,721,539</u>

Taken at average prices in Chicago—namely, 70 cents per bushel for wheat, 50 cents for corn, 35

cents for oats, and 80 cents for barley—the aggregate value of the 1901 crop would work out at 1640 million dollars, thus—

Bushels.	Cents.	
748,460,000	70	\$523,922,000
1,522,519,891	50	761,259,945
736,808,724	35	257,883,053
109,932,924	80	87,946,339
<u>3,117,721,539</u>	<u>52</u>	<u>\$1,631,011,337</u>

Deduct, say, 10 per cent for the difference between Chicago prices and average farm prices throughout the west, and we have 1470 million dollars for the value of the cereal crops of 1901. That is rather more liberal than the official valuation of the 1900 crop, which was only 1390 million dollars. The wheat yield in that year was, however, smaller and the price lower, against which has to be set a shortage of 500 million bushels in corn in 1901. For normal years 1500 million dollars will be a full valuation of the cereal crop. It represents a total yield of about 3000 million bushels and an average price of half a dollar per bushel. For the output of seven million farms that is not a colossal result. Unless the seven million farmers had other sources of income, they would not become millionaires in a hurry on either corn or wheat growing. An all-round yield of 18 bushels per acre at 50 cents per bushel pans out only nine dollars per acre when all is said.

But of course they have subsidiary crops, and

these have a tendency to increase both in number and variety. Fifteen or twenty years of continuous wheat or corn growing is as much as the best prairie soil will stand. When the pioneer wheat-grower finds that his soil is degenerating, he has the choice either to change his style of farming or to move farther west in search of virgin soil. This westward migration is going on all the time, and each year the wheat belt is pushed farther west and north-west. It is fast approaching the United States boundary and overflowing into Canada. To-day the Canadian North-West is the promised land of the prairie farmer. It is the same to him now that the Dakotas were a dozen years ago and that Minnesota was twenty years ago. In these states he has been succeeded by the so-called "mixed" farmer, who grows beef and mutton as well as wheat, contributes to the local creamery, and is always open for an experiment in flax or any other fancy crop that may be in fashion. The age of a western state can be guessed almost to a year from the kind of crops being raised in it.

In the West subsidiary crops are becoming important. In some states more is made off hay than off wheat, and its annual value is nearly as high as that of wheat—445½ million dollars against 524 millions. Potatoes are a growing item, but as yet they only figure for about 90 million dollars a-year. The wool-clip, though small compared with the Argentine or Australian,

contributes 75 million dollars a-year. Considerable quantities of beef, pork, and mutton are also raised on farms, but they may be more conveniently included in the general live stock. For his share of them the farmer has already been partially credited in the shape of hay and corn. Last of all we have his latest or most remunerative development—dairying. That new industry pours out a triple stream of milk, butter, and cheese by which 500 million dollars a-year is added to the farmer's income. The returns for 1899 issued by the Department of Agriculture were—

Milk, gals. 2,090,000,000	.	.	.	.	\$167,200,000
Butter, lb. 1,430,000,000	.	.	.	.	257,400,000
Cheese, lb. 300,000,000	.	.	.	.	27,000,000
					<hr/> \$451,600,000

The increase since 1899 will be very moderately estimated at another 50 million dollars, and the annual value of the current output will be rather over than under 500 million dollars. Without going further, the subsidiary products enumerated make up a comfortable total, as under :—

Dairy products	.	.	.	.	.	.	\$500,000,000
Hay	.	.	.	.	.	.	445,500,000
Potatoes	.	.	.	.	.	.	90,000,000
							<hr/> \$1,035,500,000

With 1500 million dollars a-year off his main crops, and another 1000 millions from subsidiary crops, the American farmer is at present doing well.

But there is no danger of his swamping Europe either with his cereals, his meat, or his dairy products. Only in exceptional seasons, when his crops are abundant and European needs are large, has he ever exported a large proportion of either his wheat or his corn. From various causes this proportion is more likely to diminish than to increase in the future. As mixed farming makes headway (which it will always do when the requisite capital is forthcoming), wheat growing will have a still greater tendency to shrink. Even in the past, when the Americans had the European wheat-market nearly all to themselves, it seldom kept pace with the growth of the population or with the expansion of agricultural settlement.

If we exclude the phenomenal crop of 1901, the American production of wheat has not been very progressive in the past decade. This is especially true of winter wheat, which has less room for expansion than spring wheat, being less adapted to the severe climate of the only remaining unsettled areas. In 1891 there were  $392\frac{1}{2}$  million bushels of winter wheat grown on  $26\frac{1}{2}$  million acres; in 1900 the area planted had fallen to  $25\frac{1}{2}$  million acres, and the yield to less than 331 million bushels. During the decade the area was once (1895) down to less than  $22\frac{1}{2}$  million acres, and the yield to  $257\frac{3}{4}$  million bushels. The average of the whole ten years ending with 1901 was only 321 million bushels—no great indication of elasticity. Spring wheat shows more expansion, for the reason already

stated, that it has in the frozen north more virgin land to fall back on. Its estimated area in 1891 was nearly  $13\frac{1}{2}$  million acres, and its yield 219 million bushels. In 1900 the area had grown to  $16\frac{3}{4}$  million acres, but the yield had dropped to 191 million bushels. But 1901 was a poor year, and it may be more just to take an average of the whole decade. This was, strange to say, almost exactly the same, having been 194 million bushels.

Putting aside the banner year 1901, which, if we may judge from past records, is not likely to repeat itself soon, neither spring nor winter wheat is making rapid progress in the United States. Their increase from year to year barely suffices to cover the growing demands of domestic consumption. The small quota available for export becomes therefore of less and less importance both to the growers and to the foreign consumers. If the wheat market of the world had continued on the course it was pursuing at the commencement of the past decade, by this time American wheat might have sunk almost into insignificance as an export. In the fiscal year 1891-92 the shipments were 157 million bushels, but they rapidly declined to  $88\frac{1}{2}$  millions in 1893-94. They continued shrinking till they got down to  $60\frac{1}{2}$  million bushels in 1895-96. Here began a cycle of bad harvests in Europe which ran up the American shipments again to  $146\frac{1}{2}$  million bushels. Notwithstanding the four heavy years that followed, the average shipments of the entire decade were

under 110 million bushels : a small export out of crops ranging from 427 million bushels to 750 millions.

It is more surprising still to find that corn is less progressive than wheat, and also of less consequence as an export. The past decade opened in 1891 with a crop of 2069 million bushels raised on 76 million acres of land. The crop of 1900 was estimated at 2105 million bushels and the area at  $83\frac{1}{4}$  million acres. If we were to bring the crop of 1901 into the comparison, it would show a loss of over 500 million bushels combined with an increase of 15 million acres in the area planted. But that disastrous year would naturally be repudiated by the Americans. It was not, however, so very exceptional a season as they would make out. During the decade there was one still worse—1894, with 1213 million bushels, and two others not much better—1893 with  $1619\frac{1}{2}$  million bushels, and 1892 with  $1628\frac{1}{2}$  millions.

Nor does corn figure particularly well as an export. In the second half of the decade it was exceptionally heavy, for the reason already indicated—poor harvests all over Europe. But in the first half—say from 1891 to 1896—it did not count for anything at all. The highest recorded shipment in that period was under 100 million bushels in 1895-96, and the lowest was 46 million bushels in 1892-93. The average of the ten years was only 126 million bushels, which on an average crop for the same period of about 1906 million bushels is



less than 7 per cent. Evidently American corn has not very great international value.

From the wide distribution of American bread-stuffs and the prominent position they hold in every foreign market, it is generally assumed that they are the most important and remunerative product the Americans have. The wheat crop especially is treated as a barometer of the year's prosperity. If it be good, everything, including the railroads and the stock-markets, is expected to flourish. If it be poor, there is a general apprehension of poverty. These popular notions make a great deal too much of wheat. They keep up an idea which had some basis years ago when wheat was the staple crop of the American farmer, but which is quite out of date now. Lately we have seen instances of a wheat crop being almost entirely lost without the district suffering very seriously in consequence. Even corn, which is a far heavier crop than wheat, has proved a failure without anything like national disaster being the result.

Not in the United States only but in other agricultural countries it has been repeatedly observed that good crops are more beneficial than bad crops are harmful. Not much inquiry is needed to discover a reason for this anomaly. A series of fine crops create a demand for land; they raise agricultural values of all kinds, and the farmer gains far more by such appreciation than by the mere increase in the quantity of wheat or corn he may have to sell. An extra five bushels per acre on

200 acres may be worth \$500 to him, but if at the same time his land gains five dollars per acre in market value, that is another \$1000 to the good. This may be a key to the very large share the agricultural states seem to have had in the McKinley boom. The census bulletins have brought out an extraordinary fact confirming this view. They show higher increases in the farm values of Iowa and Minnesota than in the manufacturing values of the six chief industrial states—New York, Pennsylvania, Illinois, Ohio, Massachusetts, and Indiana.

The appreciation of farm property in the two states during the decade 1890-1900 was as under :—

Minnesota . . . . .	\$373,983,016
Iowa . . . . .	733,662,967
	<u>\$1,107,645,983</u>

In the six industrial states the appreciation of manufacturing property in 1890-1900 was—

Indiana . . . . .	\$102,876,162
Massachusetts . . . . .	193,231,946
Ohio . . . . .	202,999,247
Illinois . . . . .	274,825,086
New York . . . . .	521,040,025
Pennsylvania . . . . .	560,305,597
	<u>\$1,855,278,063</u>

For a farming state to add 733 million dollars to its assessable wealth in a single decade, or at the rate of over 73 million dollars per annum, would have seemed incredible till lately. It rep-

resented a gain of 66 per cent, or two-thirds. It was also more than double the increase of the preceding decade (1880-90), which had been only 300 million dollars. The enormous expansion of dairy-farming, by which Iowa has distinguished itself of late, may have contributed largely to this abnormal appreciation. The Minnesota increase, though only half as great in amount, represented a higher percentage than that of Iowa—namely, 90 per cent as compared with 1890. But it was partly accounted for by a 32 per cent increase in the number of farms, while the Iowa farms were only 13 per cent up in point of number.

After all just and necessary allowances have been made, it is a singular circumstance that farm values should have expanded at a more rapid rate than manufacturing property. For Iowa to show itself a more progressive state than New York or Pennsylvania has surprised the Americans themselves. It may detract a little, though not much, from the importance of the case that these census returns are to a certain extent paper values only. Farms may in a cycle of less prosperous years fall again in value almost as rapidly as they rose. In fact, however, the reactions are generally slower than the booms, and do not go so far. Of every appreciation there is always something permanently retained. The reaction is further neutralised by the fact that many farms change hands at the higher values, and the sellers hold on to their profits while the

losses of the buyers may be widely distributed. The latter may often come to grief, in which case their creditors have to bear the brunt of the reaction. When the appreciation goes so far as to start a land boom, like the one now rampant in the North-West, it then passes into the gambling stage and ceases to be an agricultural subject. The only remark that land booms call for is a caution as to their inevitable sequel.

The most remarkable feature in the existing agricultural situation in the United States is that the American farmers begin to feel themselves pinched for room. Eloquent proof of that is given in the stampede they are making across the border into the Canadian North-West. A New York correspondent, writing in the autumn of 1902, thus described the exodus:—

The movement of settlers from the United States into the Canadian North-West is assuming proportions so enormous as to attract general wonder in this country as well as in the Dominion. Individuals are pouring into Manitoba, Assiniboia, and Alberta, and other western provinces, by the thousand every day. Different companies in the United States and Canada are buying the farm lands by the hundred thousand acres in order to parcel them out to settlers, most of them Americans. A Toronto syndicate has just made a deal of this sort for one million acres. The agents of these land companies in St Paul, Minn., which is the centre from which this movement makes its way into Canada, are said to be selling about 20,000 acres of land daily to home seekers and investors. The volume of this spring's immigration into these north-western provinces

is fully treble what it was a year ago. In April alone 10,000 immigrants passed through Winnipeg, Manitoba. By those who are closely following this migration it is estimated that fully 200,000 Americans will go into the Canadian North-West this summer. The new settlers appear to be a thrifty class of practical farmers, most of them having come from leading farming states like Illinois, Iowa, Nebraska, and Minnesota.

A strange turn, indeed, of the wheel of fortune when the Americans have to seek the hospitality of their once slighted neighbours—the Kanucks! They are getting a cordial welcome in Manitoba, as they formerly did in British Columbia, and as settlers they will no doubt prove worthy of it. But the Canadians do not know quite what to make of it. While they fully appreciate all that American enterprise and hard work may do for them, they do not regard the prospect with unalloyed satisfaction. In a political sense it may be possible to have too many Americans within the Canadian boundary. Should they in any part of the country become predominant, as may easily happen, American ideas and American schemes may become just a little too prolific.

It is consoling to find that the Americans on their side are not entirely easy in their minds about the future of this strange movement. For them, as well as for the Canadians, it has its pros and cons to be weighed against each other. The more settlers they send into Canada the greater a hold they will acquire on the trade of the North-West, and the better claim they will have to

extend their railways across the border, and compete at every possible point with the Canadians. The flour-millers of Minneapolis have long regarded with covetous eyes the vast grain-fields of the North-West, which might supply so much grist to their mills if the American custom-house did not prevent. On their own side of the border they can no longer get wheat enough to keep their immense plants going. At present they are working on half-time from sheer scarcity of wheat.

"Milling in bond" is now being agitated for as a means of getting round the custom-house. The latter is sympathetic, and a trial shipment of 200,000 bushels of Manitoban wheat has been brought across in bond. It will be milled at Minneapolis under fiscal inspection, and sent to the coast in sealed cars. But the Manitoba millers are not going to let their wheat be diverted to American mills without a struggle. They know their business quite as well as their Minneapolis friends do. They can build mills at home as fast as they are needed, and they will see to it that not much, if anything, is to be made by carrying Manitoba wheat five hundred miles out of its way for the purpose of putting it through American mills.

Here is, indeed, a discordant note in the American pæan of world supremacy! While they imagine they are capturing every foreign market, and taking the lead everywhere, here is one of their best and oldest industries threatened by their

next-door neighbour! It is amusing to see the Canadians quietly diverting the wheat trade of the North-West from American channels to channels of their own. This diversion has been going on for a year or two, and has at last begun to excite alarm among the Americans. They have suddenly discovered that Canada is being developed by American capital and American labour. Instead of receiving immigrants from Canada, as has hitherto seemed the natural course of events, their best miners and best farmers have been crossing into Canada at the rate of thousands a-week. It is admitted to be impossible to stop them, and, to do the Americans justice, they are above any small feeling of that sort. The only remedy which has yet suggested itself to them is a characteristic one—annexation, but whether annexation of Canada to the United States or the United States to Canada they leave in doubt.



## CHAPTER XXV.

TYPICAL INDUSTRIES (*continued*).

## II. MINING.

IT might be plausibly argued that the Americans owe more to their mines than to any other source of industrial wealth. This is true to the extent that in nearly every section of the country the miner has been the pioneer of prosperity. As an actual wealth producer he bears no comparison with the farmer. If his accounts were all carefully balanced it might be found that they showed a loss instead of a gain. Nevertheless, the miner has always given a greater stimulus to industry than the farmer or the manufacturer. His work is of a more speculative, and therefore more exciting, kind. It is more in the nature of a lottery than an ordinary trade, and much stronger and more continuous exertion is put into it for bare grub than could be called forth by the most liberal wages. A mining camp is always the harbinger of a boom for the surrounding district. Should it develop into a permanent mining city, the benefit to the district continues and develops into national importance.

Even when the mining camp fizzles out, the boom still leaves some durable trace of its presence.

It is as a stimulus to other and higher forms of industry that mining has its chief value. And of this no country furnishes more notable instances than the United States. Pennsylvania, as a purely agricultural state, might have been only a bigger Maryland. But for the gold-diggings there would have been no California for at least another thirty years, and the first trans-continental railroad might be no further forward than the Panama Canal. But for the discovery of copper at the upper end of the Michigan peninsula that might still be a mere logging country. But for the iron ore deposits on the west shore of Lake Superior there might still be Indians roaming over the Mesaba range. Wherever there has been sudden and rapid development, mining of some kind is pretty sure to be a powerful if not the chief cause.

But between the agricultural and the mining industries a great difference has to be observed. The former has much the larger area. It is of national extent, while mining, as a rule, is local. The area of mining country bears no comparison to that of farms and grazings. This is so even in the United States, though in proportion to its total area it has perhaps more mineral lands than any other country in the world. It has the further advantage of their being well distributed and, as a rule, easily accessible. In the east it has a coal and iron belt stretching for many hundred miles

across Pennsylvania, Ohio, and West Virginia. South of the Ohio River it has another chain of iron and coal deposits running down through Tennessee and Alabama to the Mexican Gulf. Round the south end of Lake Superior it has the great copper belt culminating in the Calumet and Hecla. On the west side it has a series of iron belts as yet but half explored. Montana furnishes a second copper belt and Arizona a third, with the gold and silver deposits of Colorado lying between them.

The Great West has grown out of these far-scattered mining camps and the prairie wheat-fields, which followed them in the order of settlement. Both are characteristically American, and have had their share in building up American character. But it may be doubted if they have not already reached their maximum influence. They can hardly do as much for the coming generation of Americans as they did for the generation which had, as it were, the cream of their productive power. The age of bonanzas may not be absolutely over in the Far West, but new bonanzas are fewer and farther between. There is no second crop of Mackays, Floods, Haggins, and Dalys to be heard of on the Pacific coast. Rich strikes are less and less frequent, and when they do happen they present themselves to the public under quite different conditions to those of the old timers. When the best of the orange has been squeezed out by the original financiers,

the skin is passed on to the public at a price which capitalises both consumed and unrealised profits at more than freehold value.

While there are still huge fortunes being made in mining by private individuals, there are also huge fortunes being lost by the public. The former have the first squeeze of the orange and the latter get the skin. Mining companies fare better in the United States than in Great Britain, or we should rather say they do not fare so badly; but, after all, it is not a very fat living they get. From the dividend list of the 'New York Engineering and Mining Journal' we have selected half-a-dozen groups of the best paying mining corporations in the States in order to show that the richest bonanzas may be very ordinary investments when the glamour is stripped of them. The gold and silver group embraces thirteen historical mines—the Alaska Treadwell, Centennial Eureka, Consolidated California and Virginia, De Lamar, Hecla Consolidated, Homestake, Horn Silver, Ontario, Plumas Eureka, Richmond, Silver King, Standard Consolidated, and Stratton's Independence. These thirteen mines have an aggregate capital of  $73\frac{1}{4}$  million dollars, and they have paid in dividends  $67\frac{1}{2}$  million dollars. Thus, if all the existing shareholders had paid only par for their shares, and had lost nothing by market fluctuations, they would still be a few million dollars short of a complete refund of their capital.

The copper group of ten celebrated mines

embraces the Anaconda, Arizona, Boston and Montana, Calumet and Hecla, Osceola, Parrot, Mountain, Quincy, Tamarack, and United Verde. Their aggregate capitalisation is 58 million dollars, and up to the end of 1901 they had paid in dividends 172½ million dollars, or about three times the amount of their capital. Without reference to the water which may have been injected at various times, that would be a satisfactory return to holders of the shares at par. A very small proportion of existing shareholders have, however, got in at or near par. Most of them bought at premiums ranging from 100 to 800 per cent, and their returns will be in inverse ratio to the premiums they paid. If we include in this group its latest born offspring, the Amalgamated Company, a good deal more gilt will have to come off the returns. Its nominal capital is 155 million dollars, and so far its dividends have aggregated little more than 17 million dollars. At this rate it will need a considerable time to refund its generous capital.

In the iron and steel group—ten in number—we have mining corporations of later growth than the two already analysed, and it is not surprising that they should show much more magnificent capitals combined with more meagre returns. They are the Alabama Coal and Iron, American Iron and Steel, Bethlehem Steel, Cambria Steel, Empire Steel and Iron, Pennsylvania Steel, Republic Iron and Steel, Susquehanna Iron and Steel, Sloss Sheffield Iron

and Steel, and United States Steel Corporation. Their aggregate capitalisation is 1264 million dollars, while the dividends paid foot up to only 55 million dollars. Four-fifths of the latter, or 42 millions out of 55 millions, issued from the Pandora's box of the United States Steel Trust, represent nine months of its fabulous profits. Thirteen million dollars is a small share to leave to the other nine companies, which had been years in the trade before the Steel Trust was born.

Only four of these have yet paid back to their shareholders a million dollars or more in dividends. The aggregate return of the Sloss Sheffield to date is \$925,000 on a capital of 20 million dollars. Bethlehem Steel has paid \$1,321,000 on a capital of 15 million dollars; the Republic Iron and Steel \$3,909,000 on a capital of 25 millions; and the Cambria Steel 4½ million dollars on a capital of 50 millions. All the other companies in the group have paid back from \$284,000 to \$627,000 on capitals ranging from half a million up to 20 million dollars. Very probably all of them are doing much better during the present Morgan boom than they did in their early days. But if the Morgan boom were to give out on them, and they had to revert to the old days of reasonable profits and moderate output, former dividends might contrast poorly with their Morganised capitals.

The coal group is comparatively young, and some of them have hardly lived long enough to get into the dividend list at all. The following

eleven are fairly representative—namely, American Coal, Consolidation Coal, Colorado Fuel and Iron, Lehigh Coal and Navigation, Maryland, Monongahela, Montana Coal and Coke, Pittsburg Coal, Tennessee Coal and Iron, Texas and Pacific, and Westmoreland. On nominal capitals aggregating 145 million dollars they have paid back about  $45\frac{3}{4}$  million dollars, but four of the eleven companies have found nine-tenths of the money. One company, the Lehigh Coal and Navigation, furnished over 19 million dollars of it (\$19,378,000). The next four made up about  $19\frac{1}{2}$  millions between them—namely, Westmoreland  $6\frac{3}{4}$  millions, Consolidated  $5\frac{1}{2}$  millions, Pittsburg  $4\frac{3}{4}$  millions, and Colorado Fuel and Iron  $2\frac{1}{2}$  millions. Five companies therefore divided nearly 39 million dollars out of  $45\frac{3}{4}$  millions, leaving for all the others only  $6\frac{3}{4}$  million dollars.

We have not taken into account here the coal properties belonging to railroads, such as the Reading, New Jersey Central, Erie, and Ontario. These roads own or control nearly the whole anthracite coal-fields of Pennsylvania, and until lately they found them the reverse of profitable investments. In the past two years they have recouped a good deal of their former losses, but it is a question how long coal consumers will submit quietly to the exorbitant coal tariff now in force. In the west the Atchison, Missouri Pacific, Union Pacific, and other roads also own coal-lands, but chiefly for their own use.



The oil group is numerically large — about thirty in all—but it consists of one triton among a shoal of minnows. The Standard Oil Company, with its 100 million dollars nominal capital and  $39\frac{3}{4}$  million dollars of dividends paid, represents Eclipse and the rest nowhere. There are two other 10-million dollar companies, the Union and the Whittier Consolidated, but all the others are small concerns of  $2\frac{1}{2}$  millions and under. The aggregate capitalisation of the group is  $136\frac{3}{4}$  million dollars and the dividends paid  $42\frac{3}{4}$  millions, of which only  $36\frac{3}{4}$  million dollars capital and 3 million dollars of dividends are outside the Standard Oil Corporation.

## CHAPTER XXVI.

TYPICAL INDUSTRIES (*continued*).

## III. MANUFACTURING.

THE Americans are justly proud of their industrial expansion, but it is not, as many European critics assume, a sudden outburst. It has been going on steadily and methodically for half a century, and its progress has been carefully measured at each decennial census. The United States Government is one of the few—only five or six altogether—who attempt an industrial census. Since 1850, when the scheme was instituted, half-a-dozen different experiments have been made, and in the latest of them, the census of 1900, a near approach to accuracy is believed to have been achieved. Not only is there no counterpart to this in Great Britain, but it is questionable if public opinion here be ripe for the attempt. The Chancellor of the Exchequer has perhaps not been born yet who would sanction the votes for an industrial census that are cheerfully agreed to by the American Congress. Millions of forms have to be sent out, and the tabulation of the replies merely for a pre-

liminary report occupied over a year. In connection with the census of 1890 it took two years.

A special Act of Congress empowers the Director of the Census to address to all manufacturers in the United States "inquiries relating to the products of manufacturing and mechanical establishments ; the name and location of each ; character of organisation, whether individual, co-operative, or other form ; date of commencement of operations ; character of business or kind of goods manufactured ; amount of capital invested ; number of proprietors, firm members, co - partners, or officers, and the amount of their salaries ; number of employees and the amount of their wages ; quantity and cost of materials used in manufactures ; amount of miscellaneous expenses ; quantity and value of products ; time in operation during the census year ; character and quantity of power used ; and character and number of machines employed."

To furnish such an amount and variety of information must be a great tax even on a small manufacturer. The readiness with which it is supplied by more than half a million establishments, large and small, shows how much interest Americans must take in their business. It is doubtful if there are a thousand men in the United Kingdom who would willingly put themselves to so much trouble or who would thoroughly appreciate the object of such inquiries. But the Americans evidently find that census-taking pays, and that a business man cannot have too much

reliable information about his special trade. The census returns enable him to see it as a whole, and not merely his own small corner of it. They inspire him with a larger and more patriotic ambition than merely to get ahead of his local rivals. As he sees in them the reflected progress of American industry generally, he is fired with pride in it and with fresh determination to do his personal share for its advancement.

Some of the best qualities of the American as a man of business are traceable to the admirable statistics with which he is supplied on all hands—by the Government, by trade associations, and by the press. Those, taking them altogether, are quite unequalled in Europe, and for lack of them we lose a great deal more than we know. They partly explain the American's superior foresight and his skill in laying plans far into the future. He can look well ahead, because he has the necessary data to proceed upon. The best example of that which has yet been reached is the so-called manufacturing census. The results of the latest—that for 1900—are thus summarised in the preliminary bulletin:—

MANUFACTURING CENSUS, 1900.

Number of establishments . . . . .	512,726
Aggregate capital . . . . .	\$9,874,664,087
Salaried officials . . . . .	397,730
Amount of salaries . . . . .	\$404,837,591
Average number of wage-earners . . . . .	5,321,087
Aggregate wages . . . . .	\$2,330,273,021

Miscellaneous expenses . . . . .	\$1,028,855,586
Cost of materials used . . . . .	\$7,360,954,597
Value of products (including custom work and repairing) . . . . .	\$13,040,013,638

The corresponding figures in the census of 1890 were as follows :—

MANUFACTURING CENSUS, 1890.

Number of establishments . . . . .	355,415
Aggregate capital . . . . .	\$6,525,156,486
Salaried officials . . . . .	461,009
Amount of salaries . . . . .	\$391,988,208
Average number of wage-earners . . . . .	4,251,613
Aggregate wages . . . . .	\$1,891,221,321
Miscellaneous expenses . . . . .	\$631,225,035
Cost of materials used . . . . .	\$5,162,044,076
Value of products (including custom work and repairing) . . . . .	\$9,372,437,283

These totals when compared exhibit phenomenal progress during the decade. In the number of manufacturing establishments there is an increase of 44 per cent; in the amount of capital employed over 51 per cent; in the number of salaried officials, clerks, &c., 13·3 per cent; in the average number of workmen employed during the year of the census 25·2 per cent; in the amount of wages paid 23·2 per cent; in miscellaneous expenses 63 per cent; in cost of materials used 42·6 per cent; and in value of products 39·1 per cent. On facts like these the Americans have a right to congratulate themselves. But it was not the first time they made a grand record, though Europe has only lately woke up to it.

The decade 1880 to 1890 showed even more wonderful progress than 1890 to 1900. In that period the manufacturing establishments increased from 253,852 to 355,415, or 40 per cent; the aggregate capital employed from 2790 million dollars to 6525 millions; the average number of wage-earners from 2,732,595 to 4,251,613, or over 55 per cent; the aggregate amount of wages paid from 948 million dollars to 1891 millions; the cost of materials used from 3397 million dollars to 5162 millions, or 52 per cent; and the value of products from 5369 million dollars to 9372 millions, or 74½ per cent.

So much for the general results. They are also classified and tabulated in groups representing the principal industries. Of these there are about thirty. In the textile group, wool, cotton, silk, linen, jute, and cordage factories are each summarised. The aggregate value of the woollen manufactures of 1900 is stated at nearly 967 million dollars, made up of 540 million dollars for materials, 219 millions for wages, 24½ millions for salaries, and 65 millions for miscellaneous expenses. The average number of hands employed, officials and wage-earners included, is about 700,000, and the capital invested is 1066 million dollars. The cotton manufactures are less than half the value of the woollens. The aggregate capital invested in them amounts to 467 million dollars, the number of wage-earners and officials 307,000, wages and salaries 94 million dollars,

cost of materials 176½ million dollars, miscellaneous expenses 22 million dollars, and value of produce 339 million dollars. Silk goods, again, are only a third of the value of cottons. Their aggregate in 1900 was 107 million dollars, of which 62 millions was for cost of material and 24 millions for wages and salaries; capital invested 81 million dollars.

The two groups likely to excite the greatest amount of curiosity here are iron and steel and shipbuilding. We therefore hasten to furnish some details as to these. The iron and steel industry—subdivided into rolling-mills, blast-furnaces, tinplate works, forges, and bloomeries—is carried on in 725 separate establishments: very few for the enormous amount of finished material turned out. The aggregate value of the finished products is given as \$835,759,000: very nearly 50 per cent more than the total amount of capital employed (\$580,041,000). The employees include 9544 salaried men (salaries \$12,029,000) and 226,161 wage-earners (earnings \$127,710,000). Cost of materials \$549,127,000 and miscellaneous expenses \$32,370,000. If the costs be added up they will amount to \$716,376,000, which is 119 million dollars less than the estimated value of the products. That would not be an exorbitant profit to earn on a capital of 580 million dollars, even if depreciation and contingencies had been amply provided for already. Either the products are valued very moderately or the working ex-



penses are charged most liberally. The reader, if he has any special interest in American iron and steel, will do well to keep the foregoing figures handy for reference.

And now for shipbuilding, the British industry that has most keenly excited American emulation. The Americans have, it seems, 1116 shipbuilding-yards of their own, large and small, but chiefly small. They are capitalised in the aggregate at \$77,362,000, and the value of their products, in the census year 1900, was \$74,578,000, so that they appear to turn over their capital about once a-year. Their outlays were classified thus: salaries \$2,008,000, wages \$24,839,000, cost of materials \$34,487,000, and miscellaneous expenses \$3,685,000—total \$64,020,000; leaving an apparent gross profit of 14½ million dollars, or 20 per cent, without any allowance for depreciation or contingencies. The census-takers' idea of a living profit seems to be about 20 per cent, but that would hardly satisfy the Steel Trust.

Many interesting and instructive comparisons may be derived from these tables. The principal industries may, for example, be compared in respect of the capital employed in them, the annual value of their products, the percentage of product value to capital employed, the value of the annual product per head of the workers, the percentage of wages and salaries to value of annual product, and so on. The industries most heavily capitalised are as follows:—

	Establishments.	Total capital.
Lumber . . . . .	33,035	\$611,611,524
Iron and steel . . . . .	725	580,410,710
Gas, lighting, and heating . . . . .	867	567,000,506
Textiles, cotton . . . . .	1,051	467,240,157
"    wool . . . . .	2,636	415,075,713
Liquor . . . . .	2,850	457,674,087
Chemicals . . . . .	1,740	238,529,641
Slaughtering . . . . .	921	189,198,264
Flour-mills . . . . .	25,258	218,714,104
Printing and publishing . . . . .	15,305	192,443,708
Leather . . . . .	1,306	173,977,421
Paper and pulp . . . . .	763	167,507,713
Agricultural implements . . . . .	715	157,707,951
Smelting and refining . . . . .	117	139,354,138
Clay products . . . . .	6,422	147,913,323
Cars (railroad) . . . . .	1,296	119,580,273
Carriages and waggon's . . . . .	7,632	118,187,838
Boots and shoes . . . . .	1,601	101,795,233
	<u>104,240</u>	<u>\$5,063,922,304</u>

There are here eighteen industries, or rather groups of industries, each having at its command more than one hundred million dollars of capital. They represent more than one-half of the total manufacturing capital of the country—5063 out of 9874 million dollars. Among these we may expect to find the most distinctive proofs of American skill and enterprise—the qualities, in short, which are likely to best serve the Americans in international competition. We may also find among them industries which are chiefly domestic, and others capable of exercising a more or less disturbing influence on foreign markets. In the latter category, again, industrial products which feed

foreign markets are to be distinguished from those which are competitive pure and simple.

The eighteen groups when thus regarded fall into three divisions—domestic, non-competitive exports, and competitive exports. In the domestic division may be placed gas, lighting, and heating, liquors, printing and publishing, paper, clay products (bricks, tiles, pottery, &c.), and railroad cars. These make up 1651 millions out of the 5064 million dollars capital of selected industries. The second category consists of food and manufacturing supplies, of which the foreigner can never have too much—namely, lumber, slaughtered meat, flour, smelting and refining. Their aggregate capitals amount to 1159 million dollars, or 23 per cent of the whole 5064 millions. Having eliminated these two non-competitive divisions, what remains may be considered in the fullest sense competitive. They are iron and steel, textiles (cotton and wool), chemicals, leather goods, agricultural implements, carriages and waggons, boots and shoes, the total capitalisation of which is 2252 million dollars, or 44 per cent of the 5064 millions.

The above analysis, while not pretending to be an exact test, indicates the extent to which the larger American industries are internationally competitive. Only 44 per cent is, strictly speaking, of that character, while 23 per cent is more in the nature of manufacturing materials and food-supplies. The other 33 per cent is, and must continue to be, chiefly domestic. A still more interesting

analysis may be made on the same lines by classifying the annual values of their respective products as domestic, non-competitive, and competitive. In the first division would be—

	Annual value of products.
Gas, lighting, and heating . . . . .	\$75,716,693
Liquors . . . . .	340,615,466
Printing and publishing . . . . .	222,983,569
Paper . . . . .	127,286,162
Clay products . . . . .	95,443,862
Railroad cars . . . . .	218,238,277
	<u>\$1,080,284,029</u>

In the second or non-competitive division (manufacturing materials, food-supplies, &c.) there would be—

	Annual value of products.
Lumber . . . . .	\$566,832,984
Slaughtered meat . . . . .	786,603,670
Flour . . . . .	560,719,063
Smelting and refining . . . . .	358,786,472
	<u>\$2,272,942,189</u>

The competitive manufactures and the annual values of their products form the third and last table :—

	Annual value of products.
Iron and steel . . . . .	\$835,759,034
Textiles, cotton . . . . .	339,198,619
"    wool . . . . .	427,905,020
Chemicals . . . . .	202,582,396
Leather . . . . .	204,038,127
Agricultural implements . . . . .	101,207,428
Carriages and waggons . . . . .	121,537,276
Boots and shoes . . . . .	261,028,580
	<u>\$2,493,256,480</u>

By tabulating the above three totals we may see at a glance their relative importance :—

	Annual value of products.	Percentage of whole.
Domestic . . . .	\$1,080,284,029	17½
Non-competitive . . .	2,272,942,189	39½
Competitive . . . .	2,493,256,480	43
	<u>\$5,846,482,698</u>	<u>100</u>

The two classifications of the chief American manufactures above given, one in respect of capital employed and the other in respect of annual value of products, exhibit significant resemblances and variations. The aggregates of the two—5064 million dollars of capital, and 5846 million dollars of annual products—are curiously near each other. But the sub-divisions differ widely. Manufactures chiefly for domestic use employ about one-third of the total capital, but represent only 17½ per cent of the total annual products. Manufactures which have command of large foreign, as well as domestic, markets, and which meet with little competition in either, have only 23 per cent of the aggregate capital, but 39½ per cent of the annual products. Finally, the manufactures which have keen competition to face abroad employ 44 per cent of the aggregate capital, and claim 43 per cent of the annual products.

That both as regards capital employed and annual values of products little more than 40 per

cent of American manufactures should be of a character adapted to compete with the foreigner is a rather remarkable circumstance. Only two groups—iron and steel and textiles—show very large scope for competition abroad. But, on the other hand, it is not to be overlooked that these two groups contribute between them 1600 million dollars a-year, or more than a fourth of the annual value of American manufactures.

We are well aware that the crucial question is not what the Americans can do now, but what they may be able to do by-and-by. They have only just launched into all-world commerce—only just begun to give special attention to foreign markets. Their ambition has been fired by the prospect of foreign conquests, and they frankly declare that they will have them even if at a loss. For a time they may carry all before them, whatever the natural conditions may be, but natural conditions will assert themselves in the end. The Americans may capture all sorts of foreign markets, but the question is, Will they be able to hold them? and the answer will be, That they can secure no permanent foothold where cost of production is not honestly and genuinely in their favour. On this vital point the manufacturing census sheds a certain amount of light.

It shows, as we have already seen, that American manufacturers expect to make about 20 per cent profit on their capital, however much it may be watered. The enormous watering of capital

that has come into fashion will render it more and more difficult to keep up the 20 per cent profit. In this connection it is a singular circumstance that at each succeeding census the ratio of capital to annual value of products tends upwards, and conversely the ratio of annual value of products to capital employed tends downward. The subjoined table gives both sets of totals from 1850 to 1900 :—

	Capital.	Annual value of products.	Percentage of capital to products.
1850	\$533,245,000	\$1,019,106,000	52
1860	1,009,855,000	1,885,861,000	53
1870	2,118,209,000	4,232,235,000	50
1880	2,790,272,000	5,369,579,000	51
1890	6,525,156,000	9,372,437,000	70
1900	9,874,664,000	13,040,013,000	75

Thirty years ago—namely, in 1870—the capital required to produce a given quantity of manufactured goods was only 50 per cent of the annual output. In 1890 the capital required had risen to 70 per cent, and in 1900 it had further risen to 75 per cent. At the latest rate of production the capital of a manufacturing concern can be turned over only once in nine months instead of every six months as it used to be thirty years ago. In British factories a turn over of capital twice a-year would, even in those days of joint-stock capitalisation, be considered under the average. It is to be hoped that our superiority in this respect may be zealously maintained, for it may be of great value to us when American rivalry



becomes serious. It should off-set to a considerable extent the undoubted advantages which the Americans enjoy in international competition. Great as these are, the American craze of the day for capitalising wind and water must tend to neutralise them. During a boom the heaviest capital, even that of the billion-dollar trust, may be easily carried, but when profits have to be cut fine they affect small capitals much less than big ones.

## CHAPTER XXVII.

TYPICAL INDUSTRIES (*continued*).

## IV. SHIPBUILDING.

AMERICANS regard trusts and combines with very mixed feelings. They fear them in a way, and cast a heavy vote against them at the recent state elections. But they have at the same time a sneaking affection for them in so far as they assert American supremacy in the eyes of the outer world. For this they would bear much and forgive much. Especially toward shipping they have a weak side, and whatever promises to restore to them the command of the sea, which they lost forty years ago, will have strong popular support. They are proud of the America cup, not for sporting reasons merely, but as a token that though their ships have vanished their seaman-ship remains with them. They are equally proud of their two home-built Atlantic liners, the St Louis and St Paul, though they did cost a million dollars more than they would have done on the Clyde. That they consider a small price to pay for the harbingers of a new mercantile marine.

This state of mind among the American people is not a mere passing humour, or an ebullition of envy. It is a natural and justifiable feeling, amply accounted for by the recent course of national development. Years ago, through a variety of unfortunate causes, the Americans lost the pre-eminence they had acquired at sea. In the interval they had more urgent duties to attend to in the opening up and settlement of their western territory. That work having been virtually accomplished, they are now free to turn their thoughts once more seaward. With our own passionate love of the sea, we can enter into their feelings and realise that here there are motives involved of a nobler kind than mere commercial rivalry. The shipping movement has a strongly patriotic side.

The British people have grown so accustomed to be the principal ocean carriers for the world at large, including the United States, that they have ceased to see any incongruity in it. But if the case were reversed, and the bulk of our foreign trade were being done in foreign bottoms, even British phlegm might chafe under it. High-spirited Americans, who fancy themselves financially invincible, cannot brook the thought that ever since the Civil War foreigners have been carrying for them three-fourths of their exports and imports. They have been allowing themselves to be gradually elbowed out of their own maritime business. Perhaps they would prefer to say that they have been leaving it to other nations to do for them.

At all events, their own share of it has been steadily decreasing for a whole generation.

In 1870 they had a foreign commerce of 992 million dollars, of which 353 million dollars, or fully one-third, was carried in American vessels. In 1880 the total value had risen to 1503 million dollars, but their own share of carrying had fallen to 258 millions, a little more than a sixth. In 1890 the aggregate had farther increased to 1647 million dollars, of which only 202 millions, or less than one-eighth, was carried in American vessels. In 1899 the totals were 1924 and 160½ million dollars respectively — eleven-twelfths in foreign ships and one-twelfth in American. A comparison of tonnage engaged in foreign trade from American ports would not be much more flattering to the national pride. In 1899 the British tonnage so employed amounted to 7,943,402 against 726,213 American. In 1890 they had been 6,830,553 tons and 928,082 tons respectively ; in 1880, 5,213,186 tons and 1,314,402 tons ; in 1870, 4,229,127 tons and 1,448,846 tons. All through the thirty years British tonnage had been growing and American tonnage diminishing. Between 1870 and 1899 the one had lost 50 per cent while the other had gained 90 per cent.

That the Americans, while aspiring to lead the world in industrial skill, should have drifted so far behind in shipping is incomprehensible even to themselves. They confess that they cannot adequately explain it, but all the more they are

resolved to have it altered. The British theory is that the Americans got left behind in the transition from sail to steam: they clung too tenaciously to their wooden clippers. The Americans do not altogether admit this. In their opinion it was the change from wood to iron in shipbuilding that turned the tables in favour of Great Britain. This coincided with the Civil War and the Confederate privateering which drove the American flag almost completely off the ocean. The two causes working together produced disastrous results.

In 1850 the United States had been adding to its merchant marine 272,000 tons per annum as against the British 133,695 tons. In 1870 the United States was building almost exactly at the same rate as in 1850, its total addition having been 276,953 tons; but the British shipbuilders had in the interval shot ahead and increased their annual output to 391,831 tons. In 1880 the relative amounts of new building were British 411,736 tons, American 157,410 tons. In 1898 they were British 709,870 tons, and American 180,458 tons—about 4 to 1 against the Americans. While it is undoubtedly true that the British got their first lead during the Civil War, it grew even more rapidly after the war. Our strongest advance was made in the decade 1880-90 (from 411,736 tons to 657,046 tons); just about the time when iron gave way to steel, as wood had already given way to iron. Iron shipbuilding was begun on the Clyde in the 'Fifties, and in 1860 about 30 per cent of

the British register was iron-built. Toward the end of the 'Seventies experiments were made with steel, which answered so well that in a few years the new metal overtook iron, and by 1887 the proportion of steel to iron was nearly 5 to 1.

American shipbuilders, as a rule, attribute British ascendancy to iron and steel, of which Great Britain was then master, as the United States is now. "From the application of the Bessemer and Siemens processes of steel production in Great Britain, beginning in 1856 down to 1890, that country led the world in the production of steel. Since 1890 the United States has taken the place of Great Britain as the leading producer of these two shipbuilding materials. The ascendancy of Great Britain in shipbuilding over the United States coincides almost precisely with the appearance of these inventions." With the Americans there is nothing like steel now that their steel has got ahead of all others. But they admit that though they beat us in steel we can still beat them in building steel ships.

On this point they are charmingly frank. Our shipbuilding is the one great industry which they envy us. It is the only one which their experts speak and write about with unreserved praise. In it they find something of their own best methods. Even our workmen are found worthy of commendation. Our shipbuilding-yards are well organised. They possess—in a crude form, it is true, but still genuine—the cardinal American virtue of

standardisation. They have so much work that they can classify it, and have every slip occupied with a vessel for which it is well adapted ; not as in American yards, where slips, each capable of building a *Campania*, have been seen, one with a man-of-war, the next with a tug, and others with a ferry-boat, a yacht, and a revenue cutter. Arguments like these are cleverly used by the advocates of an American commercial marine to back up their claims to Government assistance. They furnish the stock pleas for shipping subsidy bills and for liberal additions to the American navy. Every man-of-war or cruiser contracted for by the Government is said to help the shipbuilder to take private contracts so much cheaper.

It is important to observe the clear-sighted and resolute manner in which the Americans approach this shipping question. They do not plunge into historical discussion over it, or fill the columns of their evening papers with contradictory rubbish, as has happened nearer home. They regard it as an industrial problem of the highest rank which has got to be investigated, studied, and solved. Until lately it remained in the hands of professional experts, who quietly but diligently matured suitable plans to be turned over in due course to the financiers. Many of these experts—marine architects, shipbuilders, &c.—have visited all the principal shipbuilding-yards in Great Britain and Germany. They have examined every detail of the work carried on, and on their return home have



reported to their various professional associations at length. Important exchanges of opinion have followed. In some cases plans have been outlined for American establishments, and two or three experimental starts have been made.

The thoroughness of the American character is evident in all these proceedings. Some advocates of the most up-to-date shipbuilding have got so far as to recommend that the maximum of economy should be secured by having shipbuilding-yards complete in themselves from the steel-making to the decorating. The ideal to be arrived at is a similar combination to that of Vicars, Sons, & Maxim—namely, steel-works inland, with shipbuilding-yards on the coast. Or better still, to have both steel works and shipbuilding-yards on the coast. It appears that an example of this combination already exists in the States. The Maryland Steel Company, at Sparrows Point, near Baltimore, after establishing a steel-making plant on a large scale, attached to it a shipbuilding department as an auxiliary. The latter is so organised that it can be laid off when orders fail, and the management then devote their whole energy to steel making, which is considered their primary business.

An American expert says of this arrangement, "We venture to predict that it is destined to be the type of organisation which must ultimately prevail in the United States, either through the financial consolidation of steel-planting plants, or

by the expansion of shipbuilding plants into steel-making." What such combinations may become capable of in the near future is already being illustrated at Sparrows Point. They have there under construction for the Pacific fleet of the Great Northern Railway—the Hill road—a 28,000-ton steamer. It will be of the Celtic type, but several thousand tons larger, and is intended to develop the Celtic principle of moderate speed, small consumption of fuel, and huge carrying capacity. Mr Hill himself describes it as an extension to water transportation of the mammoth locomotive and the 50-ton car. The boat is one of a pair, the other being built at New London on Long Island Sound, which will run between Seattle and Japan and China. It is estimated that their running expenses will not be over 25 per cent higher than those of the 7000-ton steamers already on the same route, while their cargo capacity will be four times as large.

In some respects these 28,000-ton steamers are the most notable and portentous of all the industrial developments now going on in the United States. They represent a group of experiments in steel working, shipbuilding, and cargo carrying. The steel plates for them are being made on the spot. They are being fixed with the most modern labour-saving appliances, and Mr Hill claims for the latter that they have already done cheaper work than could be got on the Clyde. There is no handwork at all in their operation.

The plates are moved and placed in position by electric trolleys, and the rivets are put in with pneumatic tubes. Similar methods are being used at another gigantic work which Mr Hill has on hand just now—the new machine shops for the Great Northern Railway at St Paul. A local description of them says: “Electricity and compressed air are to be utilised largely as motive power of the immense mass of machinery in the various buildings. Electric power will drive the lathes and equipment of the machine shops, operate the huge cranes of the boiler shops, and be utilised in numerous ingenious devices to make one labourer as efficient as were two under the old system of things. Compressed air will drive the rivetting and chiseling machines of the boiler shops, the smaller cranes, and a vast assortment of tools constantly employed in repair work on the bodies of the huge locomotives now used. The value of these devices has become very great during recent years, when the increasing thickness of the locomotive boiler plates, accompanying the use of heavier and more powerful engines, has made handwork more and more laborious.”

Shipbuilding offers special scope for labour-saving appliances, and now that the Americans have taken to it in earnest, such appliances will be one of their trump-cards. British shipbuilders are, of course, not blind to the progress of events; but if they do not take care they may be too hard to convince of the superiority of new American tools

or plans of working. The rivetting tube, for instance, they have tried and are still rather sceptical about, but has it had a fair and adequate trial? They may do well to remember that they have more at stake on American competition than any other British industry. Compared with the ultimate fate of our merchant marine, involving as it may do our naval supremacy, the question of a few American locomotives more or less for British railways, or a few bridge contracts more or less being carried off by Pittsburg, is of trivial consequence. In these cases the Americans have simply had the benefit of casual advantages or opportunities such as fall now and then to all industrial competitors. But shipbuilding rivalry between the two nations will be quite another thing.

To go no further than the shipbuilding itself, the capital and labour involved in it are both immense. In addition to that, consider how much there is at stake in the ocean-carrying trade. It has been a source of wealth to Great Britain for over a century, and not only is that threatened, but a fury of competition is conceivable in which a large part of the trade might have to be carried on at an absolute loss. A foretaste of what may be expected by-and-by is furnished by the fight already begun for the South African trade. While this is being written an offer has been cabled to Johannesburg of freight at 10s. per ton from New York to Natal. The lowest rate available to English shippers of similar goods is 21s. 3d. per

ton, or more than double. New York has evidently set its heart on South African business, for it has been undercutting both English and German rates for some time past. When it captures that, it will make a fresh attack somewhere else, until one after another of our over-sea markets are wrested from us—unless we “wake up,” as the Prince of Wales has called on us to do.

If ever a nation had a great industrial problem presented to it, this is one. It divides itself into stages, which will have to be studied apart. First the shipbuilding stage, next the operating, and finally the financing. The Americans take these in a different order. They finance first—through Mr Pierpont Morgan—then they operate, and they will end by building the ideal steamer of the future with a maximum of cargo and a minimum of coal. It is in the third stage that they will become dangerous. When they can turn out in numbers the 28,000-ton cargo steamers from which Mr J. J. Hill expects so much, they will make a dash for the trade of all the first-class ports in the world—unless, again, we “wake up.” When they capture the first-class ports, there will be nothing left for us but the second- and third-rate ones. The question then is, When are they likely to get even with us in the building of huge cargo steamers like the *Celtic*? They can, of course, do it already at their Belfast branch, but they want to do it at home, and no doubt they will persevere until they succeed.

In this very large and complex question there are a few outstanding points challenging special attention. The chief of these, we may repeat, is the big cargo steamer of the future. The express mail and passenger service is on a different footing. It is a State rather than a private matter, and the Government might be called on for direct action in its defence. Ocean mails are the concern of the post-office, and it would be quite as logical for the post-office to run its own mail steamers as to subsidise commercial steamers. First-class passengers would naturally go with the mails, and every nationality would, or at least ought to, give the preference to its own flag.

The crux of the problem as a commercial problem is the cargo carrying. The Americans acknowledge that they have not completely solved that yet, and neither have we. But they know much more about how we stand in relation to it than we know how they stand. We can obtain much-needed lessons from their treatment of the subject. Even their criticisms and discussions on it are full of practical interest. Every factor in the problem—raw materials, labour organisation, machinery, management, and finance—they have studied, even down to the exact amount of Government subsidy they should receive in order to give them a pull over foreign competitors. The Shipping Subsidy Bills now before the Senate are all baited with statistics of this sort.

As regards shipbuilding materials, a very curious

situation seems to have arisen. Naval architects of eminence affirm that there is still a difference of about 10 per cent in favour of the British as against the American builder. On the other hand, it is asserted by American steelmakers that they can not only produce plates cheaper than the British, but that they can undersell British plates in their own market. In an official document we read statements like these: "The experience of the last seven years has enabled manufacturers of steel ship-plates to bring the price of this particular material below that which rules at Middlesborough." An expert witness, Mr Dickie, of the Union Iron-works, San Francisco, makes a still more interesting disclosure, that American ship-plates are sometimes to be had cheaper abroad than at home: "In a yard on the east coast of Scotland he saw steel being worked into a vessel that had been delivered in the yard from Pittsburg at less than £7, 2s. 6d. per long ton." In his opinion the American tariff made it possible for the British builder to work Pittsburg steel into his ships at less cost than British steel, and at less cost than is charged to the American builder for the same material in Pittsburg.

When American steel plates were being laid down in Scotland for £7, 2s. 6d. per ton, the nominal price of Scottish plates was £8 per ton, or £7, 12s. net. The Clyde builders, with characteristic shrewdness, availed themselves largely of American generosity. In November 1900 it was



said they had placed orders in Pittsburg for 150,000 tons of shipbuilding material, and they reckoned that they had saved by it a quarter million dollars compared with what they would have had to pay at home. If Pittsburg were to persist in thus favouring the Scottish builders at the expense of home builders, the fight for mastery of the ocean might take as long to settle as the cup race.

But Mr Morgan's Steel Trust, which holds the key of the situation, may not always be so very one-sided. When it is displeased with the politicians it may discipline them by granting special terms to the foreigner, but it may have patriotic fits now and then in which the special price-list will be applied at home. Prices will always be subject to its caprice, and it is significant that among the dangers most feared by American shipbuilders are violent fluctuations in the cost of steel plates. Steel for shipbuilding purposes has been known, they say, to increase in price 250 per cent in four months. Without some guarantee against being cornered in that way it would be madness to undertake large contracts.

Expert opinion in the United States is also greatly divided as to the comparative efficiency of British and American labour in shipbuilding. There are still many old-fashioned Americans about who will listen to no doubt or question that the American workman is the best in the world. But naval architects who have closely compared the results in British and American yards candidly acknow-

ledge a substantial difference in British favour. Mr Dickie, whom we have already cited, estimates that with the present methods labour cost is 25 per cent greater on the hull and 50 per cent greater on the machinery of an average sea-going freight and passenger steamer in the American yard. This he attributes not so much to the lower wages paid in British yards as to the higher degree of "standardisation" which obtains in them. In this respect, he explains, they hold a similar position to the Americans in locomotive-building. All work is paid for at a fixed price per unit or known piece entering into the composition of a ship. If the same method were being adopted in American yards, labour costs would, he believes, be reduced to the British level, allowing for the difference in the rate of wages. Mr Dickie's conclusion is that "in the development of some plan whereby we can fix a labour value for all our work which will not exceed theirs [that is, the British yards] lies our salvation."

In these comparisons, depending as they do on widely divergent personal experience and observation, there cannot from the nature of the case be very positive inferences drawn. Roughly speaking, they indicate that British shipbuilding-yards have still the lead in economy and efficiency of labour. The Americans claim an advantage as regards materials, but they do not always choose to exercise it. In the case of steel plates they can undersell British makers when it suits them to cut

prices, but there is no guarantee that it may not at times suit them better to exact fancy prices. Whatever the actual margin of difference may be between British and American costs of production, it seems to be large enough for the American shipbuilders to make good use of in Congress. It enables them to plead that they are handicapped in their competition with British builders, and that the adverse balance should be adjusted by legislative largesse. Assuming the desired help to be given, American shipbuilders will, by their own admission, start on equal terms with the British. As their shipbuilding plants increase in number and magnitude, they will benefit more and more from the improvements and the greater facilities being continually introduced.

Such is the present situation of the most exciting, if not the most important, of the industrial issues pending between the two countries. Which is to be the master shipbuilder of the next generation—England or America? It is a vital issue for both peoples, and one which may worthily engage their highest skill and ambition.

## CHAPTER XXVIII.

TYPICAL INDUSTRIES (*continued*).

## V. SHIPPING.

THE Americans have two shipping problems on hand, quite separate and distinct. One originated in Congress fully ten years ago, and has been spasmodically agitated there all through the past decade. The other was sprung on the world by Mr Pierpont Morgan with his Atlantic Shipping Combine. Congress has the great advantage over Mr Morgan of pursuing a frank above-board policy. The advocates of shipping subsidies in that august assembly say exactly what they want, and their arguments for it are put forward in plain intelligible language. What Mr Morgan is driving at no one has yet discovered, and his own countrymen are as much puzzled by his movements as foreigners are. But, different as their methods may be, the financiers and the senators are evidently working together for a common object. President Roosevelt spoke for both when he said in his first message to Congress, "The American merchant marine should be restored to the ocean."

President Roosevelt was looking back regretfully to the days of the old wooden ships when American clippers did command the ocean. All Americans do the same, and it is a national question how the lost ascendancy is to be regained. There is a small free trade minority who maintain that it can be recovered by private enterprise, but the mass of the people favour Government assistance. A few members of the Committee on Commerce oppose the Ship Subsidy Bill, a third edition of which is now before Congress. They invoke official statistics in proof of the fact that the shipbuilding interest "is at present flourishing and increasing at a most gratifying rate without any Government assistance." The Commissioner of Navigation, in his last report, shows that there were constructed in the United States, in the fiscal year 1900-01, 1580 vessels of a gross tonnage of 483,489, being the largest number since 1874 and the largest tonnage since 1855. But the majority of the committee do not stop to answer arguments which, however sound, have no influence just now on popular opinion. They do not argue at all, but simply state their proposals, which are unquestionably comprehensive, involving an immediate liability of four and three-quarter million dollars a-year, with a prospective increase to nine million dollars a-year.

The Committee on Commerce in its explanatory statement says: The purpose of the bill is, *and its reasonably certain results will be within ten years to*

*establish the maritime supremacy of the United States in the trade on the Pacific with Asia and the Philippines, and on the Atlantic in the trade of the Gulf of Mexico and the Caribbean Sea ; to establish on a secure basis the trade between the United States and the republics of South America ; and to give the United States a respectable representation in the trade of the North Atlantic."* In addition to all of which there are some incidental advantages to be gained : "It will give to the United States an auxiliary navy second only to Great Britain's ; an ocean mail service superior to that of Great Britain, France, or Germany in all respects except possibly for a few years more the service between New York and England and the North Sea ports. It will so extend shipbuilding as to transfer in time—certainly from Germany and possibly from Great Britain—to the United States the centre of that industry, as the centres of other industries have recently been transferred. Finally, it will give to the United States a measure of maritime independence corresponding to our industrial and agricultural independence."

And then as anticlimax comes a delightful "recrudescence," as medical men would say, of Jefferson Brick's finest Western style : "This object and these results are perfectly well understood abroad, and afford the reason why the measure is regarded with undisguised apprehension and hostility by the shipping interests of Europe." Very amusing this, of course, but it is also direct

and to the point. British legislators might be pardoned an occasional lapse from the courtesy on which they plume themselves so much if it enabled them to speak their minds as plainly as American Congressmen do when the occasion calls for it. The American people wanted a shipping policy, and the Senate Committee on Commerce have provided them with one which strikes the nail on the head. When are we likely to have House of Commons Committees declaring a commercial policy in terms as explicit and unreserved as the foregoing?

The above congressional manifesto in favour of shipping bounties—for it is nothing else—is but one of many current indications that with the American people the future of their shipping industry has become a national question. It has assumed a patriotic tinge, and politicians and financiers are cleverly exploiting that sentiment. The popular idea is, "We have beaten Europe in nearly everything else, and now we are to wrest from her her last remaining distinction—the command of the sea." The crusade is announced with boyish frankness and emphasis. Plans have been prepared and all the necessary calculations have been made, as if it were a big contract they were tendering for. Cost what it may, we must have it, the Americans think, and they will make a big fight for it.

What is spoken of in Washington cables as the Frye Bill, out of compliment to its godfather the chairman of the Senate Committee on Commerce,



is ostensibly designed to amend the Shipping Subsidy Act of 1891, which is an acknowledged failure. Its objects, as officially defined in the preamble, are "to provide for ocean mail service between the United States and foreign ports, for the common defence, to promote commerce, and to encourage deep-sea fisheries." Three distinct sets of subsidies are contemplated in it—first, for ocean mail steamers; second, for trading steamers; and third, for the deep-sea fisheries. The mail subsidies are to be for value received, and elaborate comparisons are made with those paid by European Governments to prove that they are not extravagant. As regards trading steamers, value received is not deemed a necessary plea. Government aid is claimed for them on the ground that, as they cost more to build and to run than foreign steamers of equal capacity do, they should have a countervailing bounty.

It goes against the grain with an up-to-date American to confess that there is anything which can be cheaper and better done in Europe than in the United States, but in a good political cause he can bring himself to do it. The Senate Committee on Commerce feel bound therefore to put on record the humiliating fact that all of the eight large cargo steamers recently built in the United States might have been bought considerably cheaper in England. Their aggregate cost will be \$7,179,000; and the price of eight British-built steamers, similar in every way, would have been

\$5,307,440,—less by nearly a quarter million dollars per ship. One cannot but admire the patriotic ingenuity with which a fact so far from complimentary in itself is turned to political account by the Senate Committee on Commerce. They moralise on it thus: "The average price per gross ton of the American-built steamers is \$102.40 and of the British-built steamers \$75.80, a difference in first cost of \$26.60 per gross registered ton. This difference of \$26.60 affects the annual cost of operation in the three forms of interest, insurance, and depreciation, usually reckoned together at 15 per cent on first cost. Fifteen per cent of \$26.60 is \$3.99."

The same ingenious reasoning is next applied to the working of the two classes of ships. The higher pay of the American as compared with a European crew is figured out at an equivalent of \$1.50 per gross registered ton per annum. The American dietary scale is also more expensive, but that is allowed to pass. The \$3.99 per ton per annum required to cover the excess in original cost added to the \$1.50 per ton for higher wages make altogether \$5.50 per ton per annum—the full amount of the handicap under which American-built vessels have to compete against British-built ones. How is it to be neutralised? Nothing simpler in the opinion of the Senate Committee on Commerce. A <sup>\*</sup>well-built steamer of regular moral habits will run on an average 50,000 miles per annum, and \$5.50 divided over that mileage repre-

sents about one cent per ton for every 100 miles run. So the bounty has been fixed in the bill at "one cent per gross ton per 100 miles sailed," which rate is candidly declared to be "designed to equalise the difference in the cost of building in the United States and operating under American laws an ocean steamer in foreign trade and of building in Great Britain and operating under British laws a similar steamer."

Happy Mr Pierpont Morgan to have at his back such obliging and patriotic senators! They do not even stop here in their generous recommendations. The one cent per gross ton per 100 nautical miles is to be available for all steamers now on the American register which fulfil the prescribed qualifications. But for new vessels built after the passing of the Act there are to be further encouragements. For the first five years they are to have an extra bonus of a quarter cent per ton per 100 nautical miles run. Their pull on the Treasury, estimated at  $1\frac{1}{4}$  cent per ton per 100 miles, on an average annual run of 50,000 miles, will be \$6.25 per ton, or on a 5000-ton steamer \$31,250 a-year. Only ships exceeding 1000 tons are to be eligible for this *bonne bouche*, and it is to be limited to sixteen voyages a-year, so as to confine it to ocean steamers trading between American and foreign ports. Otherwise lake-boats and coasters might be trying for it.

The parents of this handsome bounty protest that it is not to be a "naked" bounty, whatever

they may mean thereby. The Government is to have a *quid pro quo* for it, in fact a variety of them. First, the steamers thus favoured are to employ and train not less than 25 per cent of seamen under allegiance to the United States. Second, they are to carry ocean mails of the United States when required free of charge. Third, they are to train American boys in seamanship. Fourth, they are to be available for national defence or any other public purpose at a value to be fixed by arbitration. Fifth, *they are to be perpetually incorporated in the American merchant fleet*,—a commendable attempt to forestall any British Pierpont Morgan who might try to buy back the White Star or the Leyland line.

Thus we see that the Americans have their plan of campaign all ready, and they have been kind enough to explain it to the world beforehand. We cannot at least complain of having been attacked without warning. Now it is our turn to survey the situation, make reconnaissances into American territory, and prepare a plan of defence. Fortunately the American merchant marine is not very formidable as yet. The Frye Bill has not been passed, and its prospect of passing this session is dubious. We have at least a year's grace, perhaps two years', to get ready for serious competition. And by that time many things may have altered. Our own position may have strengthened itself considerably, and we may have

a juster appreciation of our resources than was possible in the hysterical stages of the agitation. Much irrelevant matter may have been swept away ere then, and important matters now in the background may have come to the front.

One conclusion we cannot reach too soon or lay hold of too firmly—namely, that a very small proportion of the mercantile marine now in existence will have any part in the impending international contest. Three-fourths of the steamers now afloat will be unable to fulfil the conditions of the contest. They have neither size nor speed to render them of any account in it. The champion steamers of the future, especially on the North Atlantic, are to be large as well as fast boats, or at least moderately fast, and their size will limit them to a few deep-water ports. They will be chiefly confined to six or seven great trade-routes—Liverpool-New York, Liverpool-New Orleans, Liverpool-River Plate, London-South Africa, London-Bombay, London-Australia, London-China. The question for us is, How and to what extent can the Americans invade our markets along these main routes? The hottest attack will be on the first-class ports. There may be some reflection of it on the second- and third-class ports, but these as a rule will remain outside the whirlpool.

The advocates of American bounties thoroughly understand that it is the steamer which combines

size and speed in the most effective degree that will fare best in the new *régime*. They attribute the failure of the Act of 1891 to its having overlooked this fact. According to the Senate Committee—

The Act of 1891 adopted the mile as the standard of payment. If the payment be made to the ship regardless of size the mile is the proper basis. But the Act of 1891 provides the same rate of payment for a large or small steamer of any given class if it is above a minimum tonnage. To promote the building of large steamers the amendment provides that payment shall be in proportion to size. It is entirely true that the size of a steamer has little or nothing to do with its efficiency as a carrier of the mails, speed being the important factor. It is equally true that size is of great importance when the other purposes which a mail steamer serves are considered. Many of our heaviest appropriations for improving the channels of harbours have been made in accordance with the demonstrated fact that large steamers are the means of reducing ocean freights. Hitherto the immediate benefit of such appropriations has accrued to foreign steamers. The amendment gives a stimulus lacking in the present law to increase in the size as well as in the speed of mail steamers.

Reverting to this subject at a later stage of their report, the Committee add—

The purpose and certain result of the bill in all its features will be to lead to the construction especially of vessels of large carrying capacity. Permanently low rates of ocean freight, as far as shipbuilding is involved, can be obtained more surely and expeditiously in this

manner than in any other, because they will be based on permanently low cost of operation to the shipowner. . . . Thus a high-class modern cargo-carrier of 10,000 registered tons, carrying 12,000 tons dead weight of cargo, will steam 13 knots a-day on a consumption of about 80 tons, requiring 27 men in the fire-room and bunkers to handle it. A cargo steamer of 5000 gross registered tons, running at the same speed, and earning therefore half the subsidy, cannot be operated with half the expenditure of power. To attain the same speed it will consume 57 tons of coal, requiring in the handling 19 men. So far as wages of firemen are concerned—the point of greatest difference between American and foreign steamers—the advantage is with the larger carrier. Its subsidy is 100 per cent greater, while its pay-roll will be only 50 per cent greater.

The American ideal of maritime efficiency will commend general approval among shipping authorities. It was anticipated years ago by British shipowners, who fully realise its truth and are better prepared than the Americans to shape their future policy by it. The final and crowning argument of the Senate Committee for their subsidy programme is that when fully developed it will put the United States on a level with Great Britain in respect of auxiliary naval cruisers—assuming that Great Britain sits still meanwhile. The following comparison is given of existing British auxiliary cruisers and of prospective American cruisers when the mail subsidies shall have taken full effect:—



Knots.	No.	BRITISH.	No.	AMERICAN.
		Average tonnage.		Average tonnage.
20	7	11,300	8	12,000
18	13	7,300	6	12,000
17	15	6,800	8	12,000
17	...	...	6	6,000
17	...	...	4	5,000
16	10	7,600	...	...
15	2	10,000	{	5,000
				2,000
14	2	4,000	1	4,000
13	1	12,000	...	...
	<u>50</u>	<u>225,788</u>	<u>42</u>	<u>357,000</u>

Of these auxiliary cruisers the whole of the British list is in being, but only about a third of the American list. The steamers subsidised as mail-carriers under the Act of 1891 are 27 in number, and their aggregate tonnage is 130,775. They include two steamers of 11,629 tons and 21-knot speed (St Louis and St Paul), two of 10,668 tons and 20-knot speed (Philadelphia and New York), one of 6000 tons and 18-knot speed, and seven of 17-knot speed, ranging in size from 4700 tons to 6253 tons. Four first-class and eight second-class mail-boats form the whole of the American auxiliary cruiser fleet that is up to date. The fifteen other subsidised mail-boats, ranging from 4000 tons down to 2100 tons with a speed of 14 or 15 knots, are hardly to be counted at all. They are practically coasting steamers trading to the West Indies, Cuba, and Mexico.

Against the American first- and second-class

auxiliary cruisers, twelve in all, Great Britain can set ten first-class (10,000 to 12,000 tons) and thirty-eight second-class mail-boats (6800 to 7600 tons), not to mention two 4000-tonners which we may call third-class. At present the comparison stands as follows: First class—Great Britain 10, United States 4; second class—Great Britain 38, United States 12. When the programme of the Frye Bill is realised the comparison will be changed to—first class, Great Britain 10, United States 22; second class, Great Britain 38, United States 15; third class, Great Britain 2, United States 5. Always assuming that we sit still until the Americans overtake us, which is certainly not part of our shipping programme. The simple question for British shipbuilders and shipowners is, Are they to fight for their long-established leadership of the ocean, or are they to let it pass from them without a struggle? What kind of vessels are needed to maintain it they can see. How they are to be built and how they are to be run when built are more difficult questions. An answer will no doubt, however, be found to them before the Americans have got far on with their programme.

The trading steamers on the American register qualified for the mileage bounties, which form the second part of the Frye Bill, greatly exceed the mail-boats both in number and tonnage. As reported by the Commissioner of Navigation, they have an aggregate of 1031 (steam and sail included) and a tonnage of 822,188,—six times that

of the subsidised mail-boats. It is estimated that they could comfortably earn, to start with, fully a million dollars a-year in bounties (\$1,072,095). The Senate Committee on Commerce hesitate to express an opinion on their probable growth. They only indulge in one or two speculative anticipations, as thus: "The completion in one year of 200,000 tons of ocean steamers exclusively for foreign trade, involving subsidies of \$1,300,000, would put the United States as a shipbuilding nation in advance of Germany. It would mean almost continuous work on about 400,000 tons of steel steamers for foreign trade, and the outlay of about twenty million dollars in wages paid in shipyards for two years to American labour, which has thus far had but small opportunity to build steamers to compete for the world's carrying trade." If we are to believe the champions of the Frye Bill, there is to be nothing selfish or one-sided about the shipping-bounty boom. Workmen, employers, and capitalists are all to have a share of it. But we might wish that it were more clearly indicated where Mr Pierpont Morgan is to come in.

## CHAPTER XXIX.

TYPICAL INDUSTRIES (*continued*).

## VI. IRON AND STEEL.

CONCRETE examples go further with most people than any amount of theory, and it so happens that the iron and steel industry abounds with them. Hardly a day passes which does not furnish one or more. At this present writing the yearly report of an English steel-making company has just been issued. It shows a loss of about £12,000 for the year on a capital of nearly two millions sterling, debentures and stock included. The gross working profit was £47,348, but from that had to be made sundry deductions for management, debenture interest, &c. When the moderate sum of £22,000 had also been written off for depreciation the final result was, as already said, a loss of £12,378.

When the above report appeared the United States Steel Trust was proclaiming a profit of eleven million dollars per month, or at the rate of 132 million dollars a-year (£26,400,000). Though it is capitalised at the stupendous sum of fourteen hundred million dollars,—£280,000,000,—so long

as it can earn eleven million dollars per month it may claim to be making nearly 10 per cent overhead. How it deals with depreciation we are not in a position to explain. But apart from that, the contrast between these two industrial operations is, as Mr Kruger might say, staggering. If we could account for the enormous difference they exhibit we might not be far from a solution of one phase of the American industrial problem. Why should the Americans be earning 10 per cent per annum in an industry which with our steel makers barely pays expense? Can it be superior management, better methods, more efficient labour, finer machinery, cheaper raw material, or a combination of all these advantages?

But before entering into such abstruse comparisons a preliminary question has to be asked, Were both markets quite normal and under similar external conditions? On examination we find that neither of them was normal, nor were they on equal terms. The United States Steel Trust had the benefit of almost prohibitive import duties on every article it produced. Iron manufactured abroad had to pay 45 per cent to the American customs; tin-plates  $1\frac{1}{2}$  cent per pound; iron screws 12 cents, cut nails  $\frac{6}{10}$  of a cent, horse-shoe nails  $2\frac{1}{4}$  cents, pig-lead  $2\frac{1}{2}$  cents, hoops (iron or steel)  $\frac{1}{2}$  cent per pound. Roughly speaking, foreign iron and steel entering into the United States are handicapped to the extent of 45 or 50 per cent in competition with native iron and steel. These are the fiscal advantages under which Mr Morgan's

Steel Trust operates, and against which the English company referred to has only disadvantages to set, as, for instance—

“During the twelve months to which these accounts refer,” say the directors, “the heavy steel trade has been in an extremely depressed condition. This has been owing not to any decrease in the volume of the demand for material, but to the depreciated value of English products, *occasioned by abnormal foreign competition*. The large quantities of German and American steel which have been thrown upon the English market at virtually forced sale prices have disorganised trade and precluded any possibility of competition at a profit. During the last months matters have much improved, but the year’s working in this department has resulted in a considerable loss.”

In fact, if this typical English undertaking had not operated collieries as well as steel-works, and made a good profit on its coal, its financial position at the end of the year would have been considerably worse. Very probably it is at this moment shipping steel to the United States and selling it at a fair profit, notwithstanding the 45 per cent import duties. For every ton of steel the Americans dumped on this market last year at “forced sale prices” they are now taking a ton or more of English steel from us, and paying 50 per cent more for it than we paid them for theirs. Being able to indulge in little freaks of that sort is to them the high-water mark of prosperity.

Unequal as is the fight which our steel-makers

have to carry on with the Americans, it would still have been a hard fight if the Americans had had no fiscal advantages. Apart altogether from tariff privileges, their position was destined from the outset to be strong all round. With such an unlimited supply of rich ore as they possess, it was bound to be strong naturally. With their ore deposits widely distributed, and in nearly every case within reach of cheap carriage, it had to be strong from a transportation point of view. With coal even more abundant and more accessible than the iron ore itself, it could not but be strong economically. With a huge and rapidly growing population possessing a genius for metal work, its range of consumption was boundless.

Natural and national laws have combined to mark out the United States for a great metal-producing and consuming country. It is only fulfilling a destiny that was plainly written on the shores of Lake Superior and on the Alleghany valley thousands of years ago. The wonder is, not that so manifest a destiny has reached fulfilment, but that it was not fulfilled long ago. The Americans have not, indeed, been at all precocious pupils of Tubal Cain. When they boast of being the greatest producers and also the greatest consumers of iron, the British race may well retort on them, "Why did you not take the lead much sooner?" British ironmasters, far from having reason to be ashamed of losing the lead which they held so long and so honourably, may congratulate



themselves on the brave fight they made for it to the end against heavy odds, not of one sort only, but many. A calm impartial comparison of the conditions on either side will show quite as creditably for the losers as for the winners of the leadership.

To begin with, the British ironmasters had to work with 25 per cent ore in place of 60 to 66 per cent, which is the Lake Superior average. They had no tariff protection, no friendly railways to give them rebates on their freight bills or to advance money to them to build their foundries, no cities to heap bonuses on them and to exempt them from local rates. The American ironmasters had all these privileges in their early days, and the most valuable of them they enjoy still. They also had, as long as they needed it, the pick of British labour and British brains. Where might they have been to-day without the inventions of an Englishman, Sir Henry Bessemer, and the administrative genius of a Scotsman, Mr Andrew Carnegie? They did not begin to make even a fair show in the race until these two powerful allies were lent to them by the old country. Bessemer, Carnegie, and the 66 per cent ores of Lake Superior gave them their true start. Afterwards, when the Lake Superior ores proved to be of almost unlimited extent, the tables were completely turned in favour of the Americans.

This much may, however, be unreservedly admitted to their credit, that when they did get

hold of the iron trade they made magnificent use of their opportunity. All their power of organisation, their inventive genius, and their commercial skill were brought into play and concentrated on the perfection of the work in hand. They improved and developed the process of steel making till it became practically automatic. The unchallengeable leadership which they hold to-day has been won, we readily admit, by sheer brains and business faculty. But they did not always catch fortune at the flood. Forty years ago, when iron shipbuilding came into vogue, it was not they who took the lead. That time it was their turn to get left behind. It may be an interesting reflection for Englishmen what might have happened if the Americans had been as wide awake at the commencement of the iron shipbuilding era as they are to-day. Their supremacy in the iron and steel industry might have arrived a generation sooner.

But the opportunity they missed in iron ships they found again in railway building. Not only were rails, first iron and then steel, called for in tremendous quantities, but girder-work for bridges and station buildings offered rare scope to American engineers. "It would probably not be disputed," says a recent writer, "that in bridge building Americans easily lead the British and the Germans. And the unanimous opinion would be that it is the result of our experience during half a century in bridging schemes under such a variety of conditions as to make us masters of any possible

problem that may arise anywhere else in the world. Precisely the same may be said in explanation of the success of British and the relative failure of American shipbuilding."

Later on the steel girder found another development which gave a fresh impetus to the American mills. An architect in Chicago conceived what was thought at first to be the grotesque idea of high buildings with steel frames and a mere facing of stonework. He was laughed at, especially by his professional brethren, but his steel frame rose story on story until it towered above all its neighbours. They were jealous, and nicknamed it a "sky-scraper." But it found tenants, and the bold architect got more commissions for "sky-scrappers." Then Chicago was laughed at for indulging in such a peculiar craze. Still the new fashion went ahead, and after a while other cities began to experiment with it. New York had one for a sample, and rather liked it. Even the æsthetic Boston deigned to patronise the "Chicago craze," as it was called. Now the craze has spread all over the States, even to comparatively small towns. Everywhere "sky-scrappers" may be seen like tall bullies raising their heads to the clouds. At the present writing half a dozen of them are in course of erection in or near Wall Street, and dozens may be counted in Broadway.

It may surprise the reader to hear "sky-scrappers" mentioned among the factors in the existing steel boom. But it is a factor, and a very considerable

one. Nor is it now recognised as such for the first time. In the boom of 1899, which was quite as hot as the present one, though shorter lived, the importance of the so-called structural demand for steel was explicitly acknowledged. Mr James M. Schwank, general manager of the American Iron and Steel Association, thus accounted for the prosperity of 1899: "The enlarged use of iron and steel in shipbuilding and bridge-building is one cause. The increasing use of steel in the construction of public buildings and private dwellings is another cause. The magnitude of this latter use has only recently been recognised. In the United States we have commenced to substitute steel cars for wooden cars on our railroads, and in this new use of steel we find another cause of the present activity in the iron and steel industries of our own country. We are now also making our own tin-plates. We are using heavier rails than formerly. The various uses to which electricity has been applied of late years, the water-supply of cities, and all kinds of engineering enterprises, have also greatly increased the demand for iron and steel in all countries."

Iron and steel work has become such a gigantic industry in the States as to require a statistical service of its own. It has, in fact, several—one being maintained by Mr Schwank's Association, one by the Geological Survey, and others by various mining and trade journals. The Census Bureau collates all these data and serves them up afresh with additions of its own. Under this bountiful

supply of statistics the Americans are being well educated in iron and steel. Their official statisticians undertake to cast up for them every year the approximate value of the year's production. Such calculations must be freely interlarded with guesswork, but a certain proportion of them is *bonâ fide*. They are at least of some use for purposes of comparison, and with that proviso we introduce a few of them. This branch of industrial statistics is divided into three groups—minerals, metals, and mineral or chemical products. The classification is not perfectly distinct, as a few staples in the first group reappear under other forms in the second and third groups. Coal, for example, reproduces itself among mineral products as coke; iron ore reappears as pig-iron; and crude cement takes other forms. But these duplications affect the totals very slightly.

In the year 1900 the aggregate output of ores and minerals (first products) was valued at 672 million dollars, metals (including the precious metals) 524½ millions, and secondary products of minerals and chemicals 72¼ millions. The grand total was fully 1269 millions (\$1269,240,000). The official statisticians do not rest satisfied with the raw materials but try to trace them, or at least the chief of them, through their manufactured stages. Thus the 26¼ million tons of iron ore raised were first converted into 13¼ million tons of pig-iron, of which 10 million tons was made into crude steel. From the latter was obtained 2½ million tons of

steel rails,  $4\frac{1}{2}$  million tons of bar, hoop, and structural steel, and over 3 million tons of plates, sheets, and wire rods. These classes indicate by their names the special character of the steel industry in the United States. The largest individual item, it will be observed, is steel rails. Plates and sheets take second place with 1,794,000 tons. Structural steel, including bridge and building girders, exhibit the remarkable total of 815,161 tons.

The above figures, naked and unadorned, proclaim what an immense industry this is, and what possibilities of money-making it offers to bold financiers. From  $77\frac{3}{4}$  million dollars' worth of iron ore the first step up is to 250 million dollars' worth of pig-iron ; the second to 300 million dollars' worth of crude steel and 90 million dollars' worth of refined iron ; the third to 400 million dollars' worth of manufactured steel and 150 dollars' worth of manufactured iron. At ruling prices the aggregates might be still larger than these, but anyhow they show sufficient margin for profits to satisfy even a Steel Trust. No need to wonder where the Steel Trust's net earnings of eleven million dollars per month come from when the industry as a whole turns over 500 to 600 million dollars per annum. Nor need we be surprised at the prosperity of a country which out of a single industry can coin such enormous fortunes.

But it has not always been so. There have been times in the history of the iron trade when neither the mines, nor the carriers, nor the foundries, nor

the steel mills were earning anything. In the terse phrase of Mr Carnegie, "iron is either a prince or a pauper." The prince has his turn now to a certainty, but it can hardly last for ever, and many people would pay handsomely for a reliable hint as to when the inevitable turn may come. As to that the technical experts differ greatly. Some will have it that the tide of prosperity is still rising and may hold for another year. Others fear that it has already begun to ebb. The wisest and calmest judgment of the American people is no longer optimist, but a little the other way. A moderate reaction all round would rather be welcomed in conservative circles, whose motto is, "Better a timely check than a belated collapse." This is most frequently applied to Wall Street, but it is equally applicable to the iron and steel market. The time has come for its leaders to choose between a timely check or a belated break.

It is a very grave as well as a most difficult question what form the next break in iron and steel may take. It will fall on very different shoulders to those of former days, and many ask themselves anxiously whether or not the new organisation will bear it better than the old one. Economically, as well as financially, the iron and steel trades of to-day are on a new and untried basis. No one has any idea how they could stand a panic like that of 1893, or a prolonged agony like that of 1884-86. This is a wholly new problem in American finance, and many



prudent minds regard it with misgiving. The theory most generally countenanced by economists is that in proportion as an artificial market can be longer maintained by the new organisation than by its predecessors, so will the break be all the more severe when it happens. On the other hand, it is plausibly argued by the supporters of the new *régime* that it has brought into existence additional safeguards against severe breaks.

Foremost among the latter is placed the stronger control which the iron and steel trades now have over their raw materials. The great iron-ore deposits of Lake Superior are concentrated in a few hands. The owners dictate prices to the Pennsylvania, West Virginia, Alabama, and all other iron regions. By regulating the output of Lake Superior ores they believe that they can maintain prices both for the ores and the finished metal. "We shall take good care," they say, "never to allow them to fall as low as they did in 1895 and other bad years." It is to be hoped that they have given sufficient thought to the tremendous contraction they might have to impose on their present output in order to reduce it to the requirements of a period of depression. It is only seven years since the annual production of pig-iron was less than half what it is now. In 1893 the production of crude steel was exactly 40 per cent of what it was in 1900. And prices were, strange to say, almost as much lower in proportion. In 1894 Bessemer pig was \$11.38 against \$19½ in 1893, while as recently

as 1898 steel rails were \$17.60 against \$32¼ in 1900.

That the Americans are having abnormal activity in iron and steel is universally recognised. Even a mere return to normal activity might be hard on them without any actual disaster. When the abnormal demand now ruling begins to fall off, the iron and steel makers will have to choose between lowering prices to stimulate consumption and reducing their output in order to maintain prices. Either course would involve a deep cut into their annual profits. A return to the price-level of a few years ago would be ruinous. So trifling a decline as a dollar per ton on pig-iron would entail on the makers a loss of nearly fourteen million dollars per annum. Every dollar per ton of a reduction on crude steel means ten million dollars less of annual income.

Still another important fact has to be taken into account—that these losses will, like the existing magnificent profits, fall on a comparatively small circle. If there are now few to share the gains, there will then be few to share the falling fortunes of the market. The apologists of the trusts claim for them such credit as there may be in having eliminated all middlemen. Trust profits, they say, accumulate without deduction from stage to stage of the manufacture until at last everything is scooped in. But conversely, losses will also be cumulative, and if their breaking strain be greater so also will be the break itself.

Among European iron and steel makers the American boom is variously regarded. It is an obvious blessing to them, in so far as it keeps American makers busy at home and with no surplus stuff to dump on this market. But it does more for them than that. It gives them a chance to dump their surplus output on the United States. So long as existing conditions hold, American iron and steel will be of little account in Europe. With all its boasted cheapness of production, it is only in exceptional circumstances that it can undersell British makes. When the Americans have a domestic boom on they are apt to be most dangerous to themselves and least dangerous to other nations.

## CHAPTER XXX.

## PROBLEMS OF THE FUTURE.

THE chief problems of American industry have now been stated. The chief factors engaged in them have been described. The chief industries themselves have been illustrated. Who will now venture to forecast their future? The magnitude of the issues involved, the variety of the forces at work, and the complexity of the conditions forbid any cut-and-dried conclusions. The most we can do as yet is to see in the dim future shadowy triumphs and shadowy disasters. How they may all work out as regards the American people themselves, and still more as regards their relations to other industrial States, who knows?—who can even form a probable opinion?

The main problem round which all the others revolve may be thus stated. Given an industrial army of 22 millions, all more or less trained and many highly trained; an industrial fund of nearly 6000 million dollars; vast command of capital and financial skill; the best known organisation both for production and distribution; special gifts of industrial leadership and political conditions of

the most favourable character,—given all these advantages, what is likely to be the ultimate effect on international trade of such formidable rivalry? Doubtless it may be said that the peculiar industrial gifts of the American people, however dazzling they may appear at first sight, must, like all other human things, have their limitations and drawbacks. The strongest qualities have their defects, and violent movements have their corresponding reactions. Granting all that can be claimed for American skill and energy, they are not always to keep up to concert pitch. Neither, let us hope, are British lethargy and shortsightedness to be everlasting. As the struggle proceeds the edge of American keenness may wear off, and some of it may be transferred to our own side. Already the chances are less unequal than they seemed to be at the outset. Joints have been discovered in Goliath's armour, and more than once David has gone out against him with unexpected success.

In order to achieve the mastery of the industrial world which they so frankly aim at, the Americans ought to be sure that their natural resources are as boundless as they imagine,—that they are, in fact, inexhaustible. They must be prepared to go on for years to come living at constant high pressure, and meeting at every turn the fiercest opposition that Europe can offer them, political as well as commercial. They need not be surprised at finding their own weapons turned against them. And

before they have been many years in the fight they may discover that it is something hotter than they bargained for. As yet they have only shown us their strength, but there may be weaknesses to reveal later on. The organisation which looks so imposing at a distance may not bear closer inspection.

It is not impossible that American progress may be hampered by sheer excess of strength and vitality. Capitalism might become omnipotent if it had all its own way, but when the twenty-two millions of workpeople band themselves together against it, as they are rapidly doing, it will encounter a powerful opposition quite as American as itself. The banks, the trusts, the railroad and other combinations which dreamed of universal control, are arousing equally resolute antagonists. Among a free people extremes provoke each other, and there will be many domestic conflicts to settle before the Americans are really ready to enter on their cosmopolitan campaign. How long these conflicts may last and how they may end are mysteries as yet. They may brace up the American race to still more strenuous effort, or they may have the opposite effect. What a difference to the rest of the world between the two issues!

Another series of qualifying possibilities is suggested by recent events in industrial finance. The Americans are as brilliant in their defects as in their virtues. The splendid qualities they exhibit as industrial pioneers, when carried to excess as

they have frequently been of late, open the door to corresponding dangers. Courage is good up to a certain point, and beyond that it may become foolhardiness. This is a truism in most countries, but in American finance it is a yet unrealised, I had almost said an undiscovered, truth. It is absolutely amazing that men with such a genius for business as many Americans exhibit should appear to be blind to the highest test of financial solidity—immaculate credit. The public do not deposit money with bankers to enable them to perform brilliant *coups*. The more brilliant the banker the less he is to be trusted as a rule. In New York, however, brilliance is everything and plain everyday safety nothing.

If this be true of local banking, it is much more true of international finance. When the Americans talk of New York becoming the monetary centre of the world, they have little idea how French and German bankers regard such a possibility. They keep their spare money in London, because they know that London is the safest as well as the most convenient place for it. If they heard of London bankers launching into Morganeering combines and fights for control, they would very soon close their accounts in Lombard Street. They are not very likely to transfer their balances from London to New York while Morganeering finance is in the ascendant there. It would hardly win their confidence to hear of gambling syndicates in Wall Street having advances of from



twenty million to forty million dollars on sky-rocket stocks. The Americans may be tenfold richer, busier, and greater people than they were a few years ago, but has their financial credit improved in proportion? Has it improved at all? Has it not, in fact, retrograded? This is a more important point than a score of others which thrust themselves in front of it. Industrial power which challenges the world ought to be sustained by world-wide credit. Can the Americans flatter themselves that their industry has that international basis?

In this, as in other respects, it may be doubted if the casual successes which the American industrial system has already achieved in Europe amount to much. They are not of sufficient weight to be allowed to prejudge the future. So far as it is concerned we must still proceed by hypotheses, actual experience being as a rule indecisive. From the great variety of data involved, it will be seen that a corresponding variety of hypotheses must be examined. All sorts of future developments, home and foreign, are possible to American industry.

For example — Are its vast supplies of food and raw materials to be indefinitely maintained?

Are they likely to retain much longer their advantages of relative cheapness, wide distribution, and easy command of foreign markets?

May not equally cheap and abundant supplies be found in other parts of the world?

Are American workmen certain to continue, as they have been hitherto, more intelligent, industrious, and tractable than any other?

Are American employers and managers to be always superior in point of skill and energy to those of other countries?

Are not the great advantages of cheap living hitherto enjoyed by Americans, especially in the West, rapidly disappearing?

Has the cost of American labour of all classes not advanced considerably in the past five years, and is it not still rising?

Are American labour unions not growing more powerful and exacting than those of any other country? Have they not also won of late some signal victories in stand-up fights with the best organised employers?

Is the new organisation of industrial capital, represented by trusts and combines, not already in open conflict with the Government, the legislature, the bench, and public opinion?

Behind all these matters of detail and overshadowing them there is the spectre of socialism. Of late years little has been heard of it either in Europe or America. Prosperity scotched but did not kill it. With adversity it will return, not only stronger and more threatening but armed with fresh weapons stolen from its opponents. The later developments of capitalism, more grasping and unscrupulous than anything ever seen before, will furnish it with new arguments. It would

require no very severe reaction in American trade to bring socialism to the front not merely as a political question but as a question of existence. Where the cost of living has been raised forty per cent in course of a few years, even liberal advances in wages may be neutralised by it. Just now the working man is much more alive to the increased cost of living than to the advance of wages. He demands a still further advance in order to restore him to the level of comfort he enjoyed before the boom. To some extent the demand may also be strategic, with a view to heading off possible attempts at reduction by the employers. The latter have therefore a serious dilemma facing them. They may be able to resist the demand for further advances, but they have little chance to be able to enforce reductions, however necessary they may become.

Any new labour war—and more than one is looming on the horizon—will have a peculiar bitterness infused into it by the socialistic feeling which is evidently spreading among the people. The multi-millionaires, if they are wise, will recognise in it a recrudescence of the Bryanism which so frightened them in the presidential campaign of 1896. The three years' distress which followed the panic of 1893 was producing a wild crop of socialism when it was fortunately arrested by the sudden and unexpected opening of a happier era. During the Bryan campaign there was worse anti-capitalism talked than ever found its way into the press.

The writer, who was then in New York, heard quite as ferocious anarchy proclaimed in front of the Cooper Institute as anything Montmartre could have produced. But if the capitalists were hated and execrated then, what will they be in their new and greatly aggravated form?

The accumulations of wealth in 1896 were insignificant compared with what they are to-day. For every monopoly that existed then there are at least a dozen now. Trusts which to-day are plethoric almost to bursting were then only in their infancy. They have captured every necessary of life, and are busy throttling every branch of industry. Two or three score of rich men, who have schemed and gambled and manœuvred themselves into an industrial dictatorship, may one day have to try conclusions with eighty millions of indignant Americans. No people can be imagined so dull, ignorant, submissive, and long-suffering as to bear such a yoke permanently. Appropriate retribution is the certain doom of adventurers who could so callously juggle with the safety and wellbeing of a nation. The nation itself is the final stake in their game. Their own fate would matter little, or even the fate of the institutions which have financed them; but if the end of it all is to be panic, and another three or four years of distress, then it will be the American people they have wronged. And what need for surprise if the American people should have in consequence an attack of socialism and anti-

capitalism commensurate with their gigantic strength and the violence of their provocation. Never before has socialism been such a direct and formidable factor in national industry as we may shortly find it to be in the United States.

Along with these domestic problems of the future the enterprising American will find a large choice of foreign ones awaiting him. Invading Europe is one thing; how Europe may receive him is another. He has already discovered, perhaps, that Europe is not to allow itself to be ridden over rough-shod. It is not going to yield without a struggle either to American financiers or tobacco rings. Its closer acquaintance with these once formidable bogeys has not increased its respect for them. Europe is now beginning to realise that it is not so defenceless as it once appeared, nor is the American invader so irresistible as he once considered himself. His ideas of the old world have been a little upset, and quite a number of them will have to be revised.

For example, Europe may not be quite so fossilised as he imagined in its industrial methods and appliances. It may not be incurably bigoted against labour-saving machinery. It may not be hopelessly prejudiced against improvements. It may even be capable of intelligent appreciation when it finds in American industry points unquestionably superior to its own.

Europe at the present time is in a favourable

mood for overhauling its industrial and commercial machinery. It is well inclined to weed out what is antiquated and adopt the most up-to-date substitutes. The European manufacturer is not only willing to learn from the American, but he will do his best to improve on his teacher.

In the international contest of brains and capital now opening it may so happen that all the talents and the virtues will not be on one side. The European may have some strong points and the American may have—shall we say—a few weak ones. His gorgeous style of capitalisation may not serve him so well on this side of the Atlantic as it has done on his own. He may run up against some things which can be better done in the old-fashioned way than by any of his too clever devices.

When the Englishman, the German, and the Frenchman settle down to a thorough study of the arts of organisation and supervision as practised in the United States, Europe may produce organisers and captains of industry to match any in Pittsburg or Chicago. When its plant and machinery are modernised, when its employers "wake up," and its workmen begin to take a national interest in their work, when the spirit of industry is as keen on the Thames as on the Hudson, it may be seen that the old world and the new are not so unequally matched after all.

On purely industrial grounds the European, when ready to do himself justice, will very prob-

ably give the American all he wants. When the fight extends, as it is sure to do, beyond industrial limits, and when fiscal and political weapons are resorted to, it is a fine hornet's nest that the American will have put his foot in. That meanest of all international arguments, the fighting tariff, will hereafter be very awkward for him to use. At home he is in deadly fear of its being weakened, and abroad of its being strengthened. His own tariff represents the maximum of fiscal endurance, but European protectionists have still a long way to go to catch up with it. The fiscal uncertainty prevailing on both sides of the Atlantic is by no means the least of his industrial anxieties.

Obviously difficult as it must be to forecast the future of American industry, one or two predictions may be offered with little hesitation. It will for years to come be subject to sudden changes and sharp transitions. The danger of pushing things to excess will be ever present with it, especially in its finance. When American manufacturers and financiers appear to be carrying all before them at home and abroad some disagreeable surprise is sure to be sprung on them. That has been an invariable incident of American booms in the past, and unless conditions be changed entirely it will continue to characterise them in the future. When such incidents happen the European producer will have an opportunity to show that he is not yet utterly effete. In the coming contest of the industrial nations the chapter of accidents will



be as much in favour of Europe as of the United States—probably more so, as the American makes it his peculiar boast that he is always ready to take risks. Just now he is particularly keen on them,—running after them in all directions, and liking them better the bigger they are. American industrialists of to-day are not traders in the ordinary sense. They are engaged in a course of gigantic adventures which may end in brilliant successes or disastrous fiascos. The new American *régime*, dazzling as it has been at the outset, is still far from assured victory. Whatever its merits and advantages, it has still much to do to prove its absolute superiority to the European industrial system it has so boldly challenged.

THE END.









